BUTANE-PROPANE News

Petroleum Technology

HEADQUARTERS FOR LP-GAS INFORMATION SINCE 1931

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PETROLEUM COMPANY
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JANUARY, 1947

ANOTHER GREAT HACKNEY IMPROVEMENT

A great cylinder made better than ever! The Hackney L-P Gas Cylinder, so popular for many years, has still another outstanding feature.

This latest Hackney development is a better ventilated foot ring. An inward curve at the top portion of the foot ring eliminates hard-to-clean crevice and permits thorough inspection. All points of contact between foot ring and cylinder are completely welded to insure strength and minimize corrosion.

At the same time you are still getting all the advantages that have made Hackney containers the preferred cylinders in the industry. Minimum seam area . . . X-ray controlled welding . . . attractive appearance . . . a perfect balance between light weight and adequate strength!

These advantages are due to Pressed Steel Tank Company's thorough knowledge of the Butane-Propane field. Since the beginning of the industry, we have remained in close contact with cylinder users. As a result, the Hackney complete line of cylinders is specifically designed to meet your requirements.

R
V. 9, no. 1–6
Jan–June 1947

HACKNEY
L-P GAS CYLINDERS

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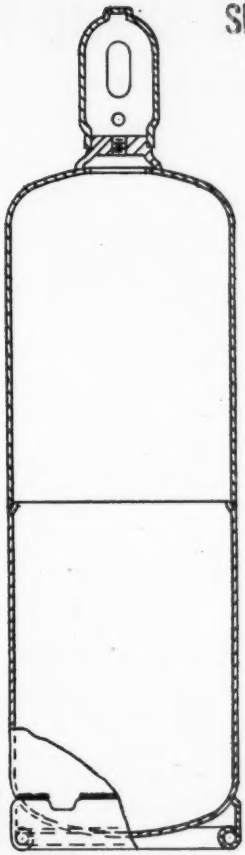


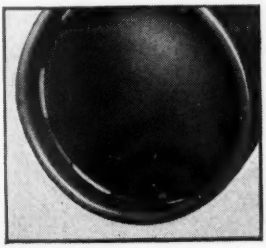
MINIMUM
SEAM AREA

ATTRACTIVE
APPEARANCE

X-RAY CONTROLLED
WELDING

AND NOW—
this NEW FOOT RING

PERFECT BALANCE
BETWEEN LIGHT
WEIGHT AND
ADEQUATE STRENGTH



"Scalloped" type foot ring permits better ventilation, easier cleaning, lower cylinder maintenance costs, complete inspection of bottom head.

TECHNOLOGY
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Pressed Steel Tank Company
Manufacturers of Hackney Products

Hackney
MILWAUKEE

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BUTANE-PROPANE *News*

Reg. U.S. Pat. Off.

Contents for January, 1947

Letters		5
Comment		9
Beyond the Mains	*By Elliott Taylor*	11
Liquefied Petroleum Gas in 1946	*By G. G. Oberfell* and *R. W. Thomas*	15
1946 in Review	*By Elliott Taylor* and *H. Emerson Thomas*	19
Texas Firm Finds Way to Balance Load	*By Robert B. Farson*	26
"Let's Face the Facts of LP-Gas Life"	*By Carroll Willis*	36
NBPA Names New President and Sets 1947 Convention Date		40
1945 Report: Industry Gains 20% in Last War Year		43
Quiz: Electric Competition—Part 3		53
Safety Demonstrations Carried to Dealers in Texas Program	*By Wm. J. Lawson*	56
Laws Made and in the Making		62
Commercial and Industrial Applications—Chapter 29: Transporting Perishable Merchandise in Trucks in Frigid Temperatures	*By C. C. Turner*	65
Looking Ahead With LP-Gas	*By S. B. Crooks*	76
Oklahoma Starts Safety Campaign	*By O. D. Hall*	88
Modernizing Influences of LP-Gas Will Keep Youths on Farm, Says Speaker		92
"Jet" Propulsion Adapted to Orchard Heating		97
LPGA Meeting in Pacific Southwest Series		102
Power: Safe Use of Liquefied Petroleum Gas As a Fuel for Automotive Vehicles		114
Products		130
The Trade		136
Classified		158
Advertisers		160

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CAMP MOWEEN FEEDS 200 BOYS WITH LP-GAS FIRED BLODGETT

"IT'S A WONDER OVEN!" says Cook Edna Foster, above, of Camp Moween, Gilman, Connecticut. "Our daily baked goods output includes 700 to 800 rolls per meal, 30 pies and 20 cakes. In addition, we use the oven for small pans of meat, served once a day, totalling 1500 lbs. per week". For "off-the-mains" mass feeding, there's no combination like a Blodgett Oven and LP-Gas. And there's no better road to load-building than the commercial cooking field. For, based on average installations,

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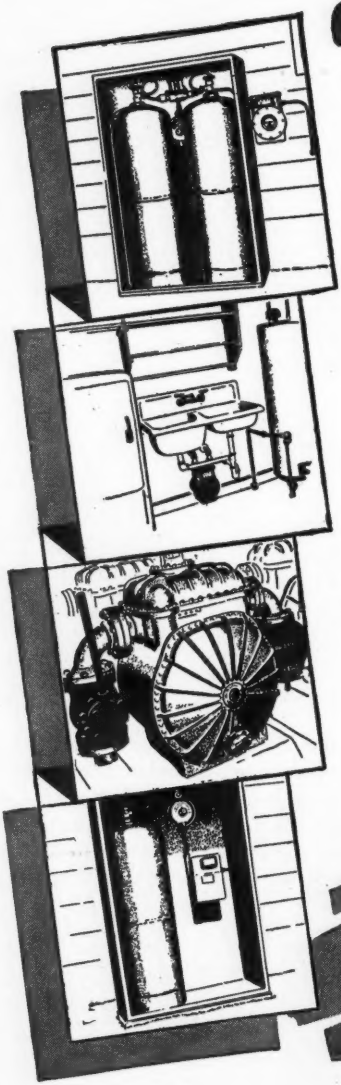
BLODGETT —Makers of Fine Ovens Since 1848

Write Today for your copy of "The Commercial Cooking Load—and How to Go After It".

No SQUARE pegs in ROUND holes!



IF YOU ARE to get the *full* advantages of metering, be sure the meters you use fit *your* particular service requirements.

. . . as assured by American Meter Company's complete line of LP-Gas meters and Reliance regulators...each bearing the industry's approval as to accuracy and performance.

In the merchandising of LP-Gas, the metered delivery is an invaluable sales aid and inspires immediate customer confidence . . . there are no doubts with a visible and authentic record of the quantity of fuel consumed.

American Meter Company brings to the LP-Gas field the same accuracy, dependability, and safety standards, that have distinguished its instruments in the older gas industries and the petroleum field.

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INCORPORATED (ESTABLISHED 1836)

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LETTERS

Gentlemen:

I have a customer who is in the market for a hot water heater but he wants to know how many gallons of butane he will use per month heating 50 gallons of water per day with an automatic heater.

He wants to keep the water at a temperature of 140 degrees, 24 hours per day. Should I sell him a 30 gallon or a 50 gallon heater? He will use about 25 gallons in the morning and about the same in the evening.

B.S.

Kentucky

Your customer's requirement appears to be two peak periods a day. It would be well to install the larger heater which would furnish some excess if it was needed. The fuel consumption should be between ½ and ¾ gallons per day—Ed.

•

Gentlemen:

Why do my kerosene lamps go out when I light my butane heating stove? When I burn wood or kerosene this does not happen. I would like to burn butane fuel all the time but I am afraid to because when the room gets warm the lights go out, evidently from lack of oxygen, and I am afraid this condition might be harmful to me. Is this true?

G.S.

Oklahoma

It is evident from your letter that no provision for venting or admitting fresh air to the room has been provided. When burning wood, a vent or chimney must be used or the room would fill with smoke. The kerosene heater will burn up the oxygen in the room the same as the gas heater but probably due to its lower Btu output the time required to notice this was longer.

This condition can be readily remedied by venting the heater and, if it is a very large one, provide some means for air to enter the room, such as planing off the bottom of the door or leaving a window open a slight amount.—Ed.

•

Gentlemen:

What is the best possible answer to the question, "How much more does it cost to heat with LP-Gas than it does with coal?"

We would also like an explanation of the small explosion-like puff that so often follows when you close off the gas to many burners.

A.K.

Missouri

We publish a book entitled, "The Bottled Gas Manual," which devotes an entire chapter to comparisons in costs and heat values of liquefied petroleum gas and coal. Other chapters draw similar comparisons between liquefied petroleum gas and oil, wood and electricity. It is a handy book for dealers to have.

The small explosion that often follows the closing off of gas to many burners is due to the fact that the primary gas mixture is incorrect. An adjustment of the air shutter or orifice, or both, is indicated. In other words, they are getting too much air. Should the proper air adjustment not correct your trouble then you should check the Btu input to see if the orifice is too small.—Ed.

•

Gentlemen:

A gas plant which has a storage capacity of approximately 360 M gallons has been using in the neighborhood of two to three million gallons of propane between the periods of September and May. They are preparing to switch over to the use of butane due to its availability, and to settle a difference of opinion will you please advise us your views as to whether or not they would need additional compressor capacity for un-

loading tank cars and moving liquid into their plant due to the fact they will be handling butane rather than propane?

Also in mixtures of approximately 15% butane vapor and 85% coke oven gas, assuming a ground temperature of 30°, how high a line pressure would it be safe to go to without experiencing condensation of the butane?

F.D.H.

Ontario

Theoretically, as the intake pressure is increased, the volumetric efficiency is increased but as the suction pressures on both butane and propane are relatively high, the practical difference will be small.

If the compressor operated satisfactorily on propane, it will do so on butane, as a greater horsepower is required to compress the remaining vapors from the tank car to the higher pressured propane storage tank, allowing a greater margin of capacity for butane.

What time might be lost in the normal transfer of the liquid will very likely be made up in the time for evacuating the car.—Ed.

•

Gentlemen:

Could you advise us where we may obtain a valve lubricant, i.e., the special grease used to lubricate gas range cock valves.

We are very much in need of this material and are unable to find a source.

G.W.D.

Kansas

The Milwaukee Gas Specialty Co., Milwaukee, Wis., and W. J. Schoenberger Co., Cleveland, Ohio, make a special lubricant for LP-Gas gas range cock valves.—Ed.

•

Gentlemen:

A customer of ours wishes to install a large bulk storage cylinder for an apartment building he owns, but wishes each apartment to have its own gas meter.

If we install meters of that sort which register the quantity of gas used, and bill the renters accordingly, would we of necessity need any franchise rights or would the apartment owner need any particular permission to read the meters and make the charges?

The apartment owner, of course, owning the meters.

L.L.Y.

California

This is strictly a matter of local ordinance. If the town in question has any specific ordinance covering installations of liquefied petroleum gas, it naturally would have to be followed. Otherwise, I can see no impediment to making such an installation. The safest thing would be to go to the city engineer or city manager and get a specific ruling.—Ed.

•

Gentlemen:

We would appreciate knowing where we can obtain the California Natural Gasoline Association Bulletin No. TS-441 entitled "Tentative Specifications and Tentative Standard Methods of Test for Liquefied Petroleum Gases," which was mentioned in the Feb., 1946, issue of the Butane-Propane News on Page 29. What is the cost of this bulletin?

G.H.H.

Wisconsin

"Tentative Specifications and Tentative Standard Methods of Test for Liquefied Petroleum Gases" (Bulletin number TS-441) may be had from the California Natural Gasoline Association, 510 West Sixth St., Los Angeles.

The price of this bulletin to non-members of the Association is $1.50 per copy.—Ed.

•

Gentlemen:

Is propane flue gas detrimental to or will it deteriorate chimneys? Is it required to aluminum-line a flue in a home that is using propane for house heating such as is required with natural or manufactured gases?

How does the sulphuric content of the propane-butane flue gases compare with natural or manufactured?

Have you available a chart show-

ing flow of propane-butane vapor gases through different size orifices at 11" w.c. up to 2,000,000 btu input?

A.D.P.

Minnesota

There is nothing in liquefied petroleum gas that would cause deterioration in chimneys. In cold climates condensation frequently occurs in chimneys, especially in cold weather where the chimneys are lightly constructed. In such instances aluminum and other materials are frequently used as liners to help get away from this condensation.

There is no appreciable sulphur in the liquefied petroleum gases. It is usually entirely extracted before sold to the industry.

We have a gas flow orifice chart that is exactly what you desire. It sells for $1.—Ed.

●

Gentlemen:

I am a discharged veteran and I am very much interested in LP-Gas. Please give me any or all information available.

Give name and address of a good, reliable school for a beginner. Also any hints and tips to pass on to a freshman in this field.

There's a lot for me to learn so I will appreciate any help that you might pass on to me—where and how to purchase supplies, tanks, gas, etc.

If you were in my shoes, how would you begin?

E.B.H.

Kentucky

I am pleased to give you the name of the National L-P Gas Institute, 430 Mayo Building, Tulsa, Okla. This school has a very good standing.

Under separate cover, I am sending you a copy of a recent issue of "Butane-Propane News." In this magazine you will find the advertisements of numerous firms which supply dealers with fuel, appliances and equipment and a study of these products offered by these firms will help you to determine how to proceed to make connections in establishing yourself in business.

Another way in which you could learn the business if you are not able to attend the Tulsa school, would be to secure a position with some dealer in your state. He would teach you the rudiments of the business and familiarize you with methods of cooperation which you could later capitalize upon for your own undertaking.—Ed.

Gentlemen:

At present our company is interested in the investigation and design of an LP-Gas plant that may be built in this vicinity. For some time now we have been attempting to procure a suitable source of information on the design features of such a plant, but have had little success.

For your own information, it might be well for you to note that in our case the charge stream is made up of the following constituents:

Methane .....46%)
Ethane .....26%) by volume
Propane .....26%)

M.P.

Canada

Most of the plants built for the recovery of LP-Gas are parts of natural gasoline absorption plants. There has been considerable literature printed on the subject of stabilization of natural gasoline which is the part of the natural gas industry that recovers the LP-Gas. It is assumed that you plan to treat natural gas to recover the propane content.

We refer you to the proceedings of the California Natural Gasoline Association, 510 West 6th St., Los Angeles, and the Natural Gasoline Association of America, Tulsa, Okla., which cover the oil refining and natural gasoline industries.—Ed.

●

Gentlemen:

If we purchased 6534 gallons of propane at 76°F., what would be correct gallonage at 60°? Also, where can we secure these conversion figures?

D.H.H.

California

You ask regarding conversion factors. Turn to Page 51 of the "Handbook Butane-Propane Gases." From table No. 1 of these NGAA Standard Volume Correction Factors for LP-Gases, in the column headed "Propane," obtain the correction factor opposite 76° which is .973. 6534 × .973 = 6347 net gallons at 60° F.—Ed.

●

● **BUTANE-PROPANE *News* welcomes letters from our readers, but it must be understood that this magazine does not necessarily concur in opinions expressed.—Editor.**

ATTENTION

MANUFACTURERS
and
FABRICATORS

Ellis Automatic Butane Co.

NOW COMPLETELY EQUIPPED TO EFFECTIVELY SERVICE LP-GAS DEALERS IN THE SOUTHWEST THROUGH OUR JOBBER-DISTRIBUTOR FACILITIES

We are the largest distributors of butane-propane fuel in Texas through company-owned transport and bulk storage equipment.

We Specialize in Marketing:

Butane-Propane Systems — Butane-Propane Bulk Storage
Butane-Propane Appliances — Butane-Propane Carburetion
Butane-Propane Utilization Equipment
(Railway Siding Facilities)

We cordially invite you to utilize the resources of our organization in reaching the tremendous potential market represented by LP-Gas dealers in our service area.

Ellis Automatic Butane Co.

4501 GREELY — HOUSTON, TEXAS — Phone K 3-3601

COMMENT

CERTAIN automotive trade magazines are joining in a national and international campaign to spread the slogan "Fix It Right."

Behind those three simple words lie technique, testing equipment and tools, meaning, of course, to perform every repair job in good workmanlike fashion, to use high quality parts, and never make an installation or overhaul without a rigorous inspection.

What a fine standard for the LP-Gas industry to adopt!

Fix it right! Install right. Refill right. And inspect! Adherence to these simple rules will bring a high degree of safety that will help the industry to advance faster than could anything else.

•

A speaker recently expressed the belief that rural life conveniences made possible through the use of butane-propane gases, would help influence farm youths to stay in the country instead of running away to the cities.

It is an interesting thought and not exaggerated at all. Add to the household comforts made possible with gas the labor saving equipment that is powered by gas. Then, the drudgery that used to dominate farming disappears.

Who wouldn't like it better?

Practically speaking, gas is going to help keep boys and girls in the country—and their parents, too—but even if some go to town, there are plenty left.

Regardless of why farmers farm, the country market for our industry is real cream.

Drying grains, fruits and nuts as insurance against weather variations; earlier marketing because of faster planting and harvesting made possible with controlled temperatures—hot and cold—for product storage; more hot water for dairying operations; better heat for poultry brooding; power for water pumping; flame weeding for crop and fence rows, and, finally—inside the house—the best fuel in the world for cooking, water heating, refrigeration and space heating.

There are millions of these farms which are logical prospects—many of them already sold on LP-Gas—and waiting only for the long promised arrival of equipment and the knock of the dealer's salesman.

•

Now pending before the Interstate Commerce Commission (Docket 3666) is a proposal to change the specifications of ICC containers for LP-Gas to allow construction with fusion-welded, longitudinal seams!

•

Even the optimistic didn't prophesy that 1946 would show the gain in new LP-Gas users that year-end surveys indicate.

Don't be confused by two industry tabulations in this issue. One is the 1945 report of the Bureau of Mines; the other, an estimate for 1946.

•

Now comes 1947. It should be better and bigger than ever. But resolve not to forget these industry ambitions:

Safety.
Larger Consumer Storage.
Better Load Balance.
No Price Chiseling.

•

Happy New Year!

By Ed.

WARNING

For Your Protection
LOOK FOR THIS TRADEMARK ON YOUR LP GAS GAUGE DIAL

BEWARE OF IMITATORS

Rochester LP Gas Gauges Are Underwriters' Listed

Only Rochester Makes LP Gas Gauges for every application.

Model 3120 is designed for above and below ground tanks. Individually calibrated for accuracy.

MAGNETICALLY ACTUATED. LEAKPROOF.

Model 3108 is designed for end and side mounting and possesses all of the safety features applying to Model 3120.

Imitation is supposed to be flattery but it may also cause trouble, especially when you are handling such volatile fuels as Propane and Butane gas. So before you attach LP Gas Level Gauges to your bulk storage tanks or ICC cylinders, make sure they are genuine "Criterion" gauges, made only by Rochester Manufacturing Co., Inc.

Both the gauge and the dial are the exclusive development of Rochester engineers for over a period of twenty years. Both have been approved by the Underwriters. No other manufacturer has the right to use either. So to protect yourself, check and double check!

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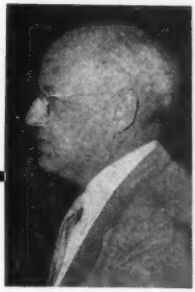
LIQUID LEVEL, TEMPERATURE AND PRESSURE GAUGES

Beyond the Mains



By ELLIOTT TAYLOR

Tank Cars Too Few

ONCE the war was over we never expected to have to write again our annual midwinter editorial on the tank car crisis, but: here we go again.

This time it is worse than ever, and promises little improvement during the next three months. It is tough to have to mix up bad news with the good, when we have just finished a survey showing that in spite of the worst kind of handicaps in the way of material and equipment shortages, the industry has had the biggest year of growth in its history. But facts are facts, and in no small measure it is the good news that is responsible for the present threat of the worst breakdown in propane transportation that the industry has ever had.

There are several reasons for this: The amount of new business being served; the kind of business that it is, and the failure of transportation equipment to keep pace with the new demands that this load has created.

In the first place, as figures on Page 19 of this issue of BUTANE-PROPANE *News* show, the sales of all liquefied gases for fuel purposes have increased by nearly 270 million gallons to reach a total of over a billion gallons for the year 1946. The actual figure, 1,111,622,000 gallons, is equivalent in round numbers to 111,000 tank cars full of gas. By comparison, the 1945 gallonage for the same uses as reported by the Bureau of Mines would have filled 84,000 cars.

Of course, all of this increase was not moved by rail, as sizable quantities are sent out by truck transport, but the increase in equipment required, this year over last, is still self-evident.

The increased movement, 1946 over 1945, is shown to have been roughly 270 million gallons, or 27,000 carloads. Assuming that only half of this was to be moved by rail, in 10,000-gallon cars, it would still be nearly 14,000 carloads more shipped during 1946 than were hauled by rail the year before.

How many trips back and forth from refinery to bulk stations can a tank car make in a year? During the war, with the Army and the ODT pushing every gallon of capacity to its utmost, the experts believed that they had achieved an average turnaround of two trips per month for the nation as a whole. If this record could be maintained today, which apparently it hasn't been and can't be, it would still take 580 new cars going all the time a full year just to handle the new load that has been added. That would be 580 cars more than were in service during 1945. But 580 new cars could not actually handle the load because they could not be operating at full capacity every month in the year

Here the changing character of the load comes into the picture to further aggravate an already grievous problem. For the increase in gas consumption for fuel purposes during the past year has been almost entirely in two categories, that of new domestic and commercial jobs and for gas manufacturing purposes. The industrial, and the internal combustion engine consumption demand has remained fairly even.

Now of these three types of gas usage, the one with the greatest variations between high and low consumption periods, or as they say, the one with the worst load factor, is that of sales to public utilities for gas making purposes. This load is always characterized by excessively high winter peaks when househeating requirements have to be met. The utility or gas-making load is worse this year than it has ever been because, as is pointed out in the 1946 Review, many manufactured gas utilities have, within the past year, installed huge storage plants, requiring millions of gallons of propane in the aggregate to fill and service them.

In other words, when their coal or water gas plants can't meet the demand, these town gas companies plan to turn a certain proportion of propane air into their lines just during the hours, or days, when they begin to run low on manufactured gas.

But where storage has been filled, and is being drawn upon during the cold weather, it will r e q u i r e refilling, since the health and comfort of domestic customers are involved and the gas utility industry realizes even more than do some LP-Gas operators, that there is a serious moral as well as business obligation on their part to keep customers in fuel once the load has been connected.

The domestic and commercial load sold by bottled and tank gas dealers is also one of peaks and valleys, and consequently one that in all areas where gas is used as a year round fuel, is characterized by heavier demand in the winter than in the summer months. The exception to this—localities where summer

camp and resort business is a large part of the load—are more than offset by the demands from those sections where LP-Gas is used for house heating.

Thus we have the dual problem of an unprecedented increase in gas consumption, and an increase in the type of consumption that is stepped up sharply and immediately with every drop in temperature. To meet this seasonal demand, therefore, more shipments must be compressed into fewer days and weeks than any annual average would indicate. This constitutes the problem that the industry is now trying to meet with inadequate transportation facilities, with a tank car fleet that instead of being 500 or 600 cars larger than last year, is actually depleted by about 95 to 100.

One of these uses, and the one that to our mind should be subject to the severest scrutiny, is that of the anhydrous ammonia movement incident to making fertilizer, a large percentage of which is destined for shipment to foreign countries. By Dec. 17 the LP-Gas industry was said to have been 780 cars behind in the shipment of orders on hand, and even in the face of this desperate situation, there seemed as of that date, grave danger that still more cars would be taken back by government agencies to speed up this fertilizer program.

Liquefied petroleum gas producers and their representatives are doing everything possible to retain the cars that are now in service, and to press the case for priorities on steel to make new ones. All that the rest of the industry can do is see to it that every car received is unloaded and started back within the shortest possible time; traffic representatives of the railroads should be impressed with the stark necessity of rushing empties back to the refineries as fast as full cars are moved to their destinations.

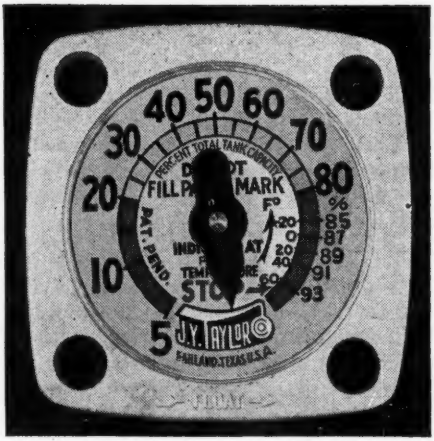
The railroads should take it upon themselves to see that their dispatchers and yard crews are aware of the gravity of the situation, and empty 104-A and 105-A cars accorded the same priority of movement that was given to army and navy supplies a year ago.

As for the dealers, we strongly urge that they take it upon themselves to find out whether the distributors from whom they buy will be able to service the additional load that will be involved if new customers are added the next two months.

And finally, if an adequate gas supply cannot be reasonably forseen, all new installations should be put off until such time as they can be sure of uninterrupted service. Any widespread breakdown in gas delivery at this time would set the industry back, and set every individual dealer back, far more than he could hope to gain by gambling on supplies now—gambling at the expense of the consumer and the liquefied gas industry's future.

Don't Guess! Don't Grope!

When a tank is equipped with a Taylor LP Gage there's no uncertainty. Taylor Gages are strongly built, accurate, and easy to read. Large, clear markings and magnet indicator plexiglass dial protection, one piece float arm construction, non-corrosive. Write for circular.



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PRESSED STEEL TANK

Hackney

BUTANE-PROPANE CYLINDERS

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P. O. BOX 566

2620 South Ervay « DALLAS, TEXAS

GAS EQUIPMENT SUPPLY CO.

Liquefied Petroleum Gas In 1946

By G. G. OBERFELL* AND R. W. THOMAS**

R. W. THOMAS

G. G. OBERFELL

LP-GAS GROWTH

1946 Sales: 1,425,000,000 gals.
33.5% above 1945.
3 times 1941 volume.
13 times 1936 volume.

3,500,000 total domestic installations.

763,000,000 gals. domestic consumption, 1946 43.1% increase over 1945.

80,000,000 gals. for utility use. Up 48.6%.

325,000,000 gals. for chemical use. Up 44.8%.

257,000,000 gals. for industrial use. Up 2%.

300 LP-Gas town distributing plants.

2500 bulk distribution plants.

3400 tank cars in use.

2300 tank cars on order.

ANYONE studying the growth of the liquefied petroleum gas industry will at once recognize the tremendous strides made in volume of product marketed. Particularly is this growth impressive when one considers that as of the end of 1946 the annual marketed volume is 13 times the volume that it was 10 years ago.

Not only has the increase in the marketed volume of these products approached staggering proportions, but, in addition, the methods of handling, selling and utilizing these products have developed to a stage of refinement and acceptance that liquefied petroleum gas now is regarded as a necessary and dependable fuel equal to or better than the best available materials for similar use.

The past year is the first full year since mid-1941 in which the industry has operated without any direct wartime restrictions. The development and growth of the industry during 1946 would have reached even greater proportions had it not been so unduly restricted by the same material and man-power

* Vice President in charge of Research and Development, Phillips Petroleum Co.
** Manager Research and Development, Phillips Petroleum Co.

TABLE 1. MARKETED PRODUCTION OF LP-GAS

Year	*Total Sales* Gallons In Thousands	Per Cent Increase	*Distribution—1000 Gallons Annually* Domestic	Per Cent Increase	Industrial & Miscellaneous	Per Cent Increase	Gas Manufacture	Per Cent Increase	Chemical Manufacture	Per Cent Increase
1922	223	..								
1923	227	24.4								
1924	376	36.0								
1925	404	7.2								
1926	465	15.2								
1927	1,091	134.6								
1928	4,523	314.6	2,600	..	400	..	1,500	..	...	..
1929	9,931	119.6	5,900	126.9	1,500	275.0	2,500	66.7	...	..
1930	18,017	81.4	11,800	100.0	2,200	46.7	4,000	60.0	...	..
1931	28,770	59.7	15,295	29.6	7,172	226.0	6,303	57.6	...	..
1932	34,115	18.6	16,244	6.2	8,167	13.9	9,703	53.9	...	..
1933	38,931	14.1	16,626	2.3	13,987	71.3	8,318	−14.3	...	..
1934	56,427	44.9	17,681	6.3	32,448	132.0	6,298	−24.3	...	..
1935	76,855	36.2	21,380	20.9	47,894	47.6	7,581	20.4	...	..
1936	106,652	38.8	30,014	40.4	67,267	40.4	9,371	23.6	...	..
1937	141,400	32.6	40,823	36.0	62,610	(c)	11,175	19.3	26,792	..
1938	165,201	16.8	57,832	41.7	62,694	0.0	12,386	10.8	32,299	20.5
1939	223,580	35.3	87,530	51.4	93,723	49.4	15,435	24.6	26,892	−16.7
1940	313,456	40.2	134,018	53.1	124,482	34.5	20,285	31.4	34,671	29.0
1941	462,852	47.7	220,722	64.7	172,669	38.6	25,255	24.5	44,206	27.5
1942	585,440	26.5	299,559	35.7	201,447	16.7	31,366	24.2	53,038	20.0
1943	675,233	15.3	339,380	13.3	242,978	20.6	37,519	19.6	55,356	4.4
1944	898,071	33.0	445,617	31.4	254,590	4.8	45,879	22.3	151,985	175.0
1945	1,067,979	19.0	533,262	19.7	256,577	0.8	53,849	17.4	224,291	47.5
1946	1,425,000	33.5	763,000	43.1	257,000	0.2	80,000	48.6	325,000	44.8

Sale of Liquid Petroleum Gas Confined Primarily to Bottled Gas Business Prior to 1928

(c) Not comparable due to segregation of chemical manufacturing.

REMARKS: In this table "Total sales" for all years except 1946 were obtained from U. S. Bureau of Mines reports. "Distribution" for the years 1931 to 1945, inclusive, was obtained from the same source. All other volumes were estimated by the writers. The total sales volume includes all liquefied petroleum gases (propane, butane, and propane-butane mixtures) when sold as such. Until 1944 the sale of pentane when sold for any purpose other than motor fuel blending was included. Since then it has been excluded. It does not include butane when blended with heavier petroleum fractions for motor fuel purposes. Intercompany sales transactions such as purchases of liquefied petroleum gases by one company from other companies and resold as liquefied petroleum gases, have been eliminated in order to avoid duplication of sales figures. The data do not reflect sales of liquefied petroleum gases used directly by the producer at the point of production, for fuel, polymerization, solvent de-waxing, etc. Neither do the figures include sales of hydrocarbons to plants manufacturing synthetic rubber or aviation gasoline or their components.

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Liquefied petroleum gas is available in handy-to-carry packages.

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shortages as were experienced by most of the other industries in the country during this readjustment period.

TOTAL SALES: It is worthy of particular note that the total estimated marketed production of LP-Gas during 1946 amounted to a little more than three times the marketed production of LP-Gas in 1941, the last full year of production and sales prior to the war. It is estimated that the total marketed production of LP-Gas in 1946 (1,425,000,000 gallons) exceeded the marketed production of 1945 by 33.5%. Particularly for household use and for gas manufacturing the demand for LP-Gas far exceeded the marketed volume which was limited by the unavailability of utilization and transportation equipment.

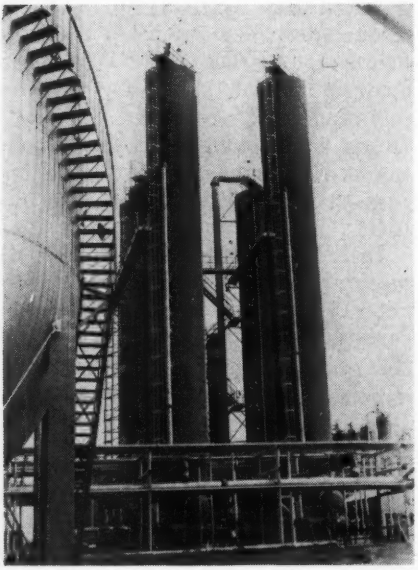
DOMESTIC USE OF LP-GAS: It is estimated that at the close of 1946 there were approximately 3,500,000 homes using liquefied petroleum gas for household purposes. In addition to these household uses, this particular classification of marketed production (See "Domestic" in Table 1) includes the many other requirements for which these customers desired LP-Gas, such as irrigation pumping, tractor fuel on the large farms and ranches, chicken brooding and the many other demands that existed for a fuel of this nature.

Included in this classification of marketed production there is a considerable volume which was used for industrial purposes, internal combustion engines and for gas manufacturing purposes. This consumption was tabulated in this classification because it was sold by producers to distributors whose principal sales were for household purposes.

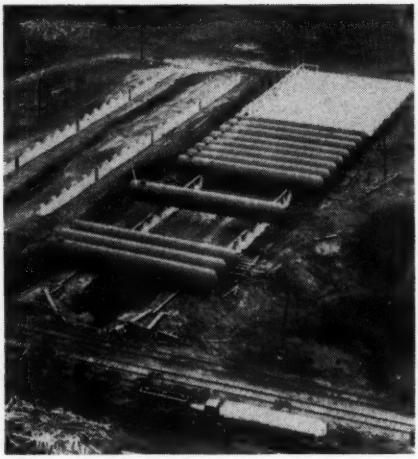
Manufacturers are recognizing the tremendous demand for LP-Gas

consuming appliances and their increased interest in this market is worthy of note. Another interesting trend is the increased use of meters for measuring household consumption.

The past year has seen the greatest demand for new bulk stations, both on the part of companies already in the business as well as by newcomers. This has resulted in making the distribution of LP-Gas to the consumer more economical because of shorter hauls, a factor that brings lower cost to the operator and an advantage in obtaining greater consumer saturation. Indications are that this trend will continue. It is estimated that approximately 2500 bulk distributing plants are in operation now.



Fractionation equipment for recovery of liquefied petroleum gas.



Installation of liquefied petroleum gas storage tanks by large utility company for augmenting gas supply.

NEW DEVELOPMENTS: The use of LP-Gas for the cultivation and preservation of agricultural products has shown a healthy increase. Flame weeding passed from the development stage to that of successful commercial application. LP-Gas is finding use in the many new dehydration plants. The experimental use of flame to promote the culture and ripening of products is continuing and the results appear promising.

The growing demand for the use of LP-Gas in foreign countries was keenly evident throughout the year. Some petroleum companies having international organizations are now more aggressively developing these markets.

The demand for long distance transportation of LP-Gas in large quantities has accelerated plans for barge and tankship design and construction.

1946 IN REVIEW

By ELLIOTT TAYLOR* AND H. EMERSON THOMAS**

Because of universal interest in the 1946 growth of the liquefied petroleum gas industry, BUTANE-PROPANE *News* publishes this month abstracted highlights of two national surveys which reveal the amazing development that has occurred in the first year since war restrictions were largely removed. The other article starts on Page 15..—Editor.

DESPITE the handicap of acute shortages and unbalanced availability in the appliances and equipment necessary to keep the industry functioning and expanding in the manner to which it has become accustomed, 1946 witnessed the most phenomenal quantitative growth in fuel usage, as well as in new customers added, that the liquefied gas industry has ever experienced.

It is now apparent that as many as 1,250,000 new customers have been added during the past 12 months to swell the total number of users of liquefied petroleum gas for commercial and domestic fuel purposes to approximately 3,560,000. (See Tables 1 and 2.)

The flow of propane, propane-butane mixtures and butane delivered in liquid form for domestic and commercial consumption has increased to 874,410,000 gallons in 1946 as compared to the official U. S. Bureau of Mines figures of 533,262,000 gallons marketed in this category in 1945; an increase of 64%.

Propane and butane sold to utilities for gas manufacturing purpose, including delivery as LP-Gas-air mixtures, enrichment and peak shaving in town gas systems showed a substantial gain, the 1946 total of 78,700,000 gallons comparing to the 1945 sales of 53,849,000; an increase of over 45%.

Industrial consumption, in which category we include that of all bulk purchasers using gas in industry, as well as sales primarily for use in internal combustion engines showed a small increase, despite the decline in the manufacturing of all precision heat-treated items made for the military during the early months of 1945.

The 1946 sales of gas for industrial and internal combustion uses totalled 258,512,000 gallons, as compared to 256,461,000 as reported by the Bureau of Mines for the year before; an increase of less than 1%.

Despite the impressive national figures, however, the growth of the industry has been irregular and spotted when viewed geographically. This is particularly true in the case of new domestic installations in the Eastern states, along the North Atlantic Seaboard where gas

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** President, Fuelite Natural Gas Corp.

Dispensing unit for serving LP-Gas to automotive vehicles.

is customarily sold in 100-lb. cylinders, delivered at retail from bulk station filling plants. Here the rate of growth has not kept pace with that of tht Midwest, the Southeast and Pacific Coast areas.

This is due almost entirely to an unusual situation existing in the steel industry whereby the plates required for the fabrication of tanks in capacities ranging from 250 gallons up were in reasonably adequate supply, while sheets of a gage suitable for 100-lb. ICC cylinders became increasingly critical as the year progressed.

The availability of permanent tanks, designed to be installed on the consumers premises and filled from tank trucks, led to a rapid increase in new accounts in those areas where the delivered price of the gas warrants its active promotion for house heating purposes, and larger consumer storage is thus required to meet the winter peaks.

In six of the Southwestern states, where designated authorities, having legal jurisdiction over the industry, kept tabulations of the jobs installed, the combined total for the year exceeds 176,000.

Since VJ-Day, Texas probably has been the Nation's most outstanding example of LP-Gas growth. Here in the period from Sept. 1, 1945, to Nov. 1, 1946, 79,000 installation permits were issued, bringing the total number of users in that state up to 300,000, or nearly 9% of the total for the country as a whole. The number of dealers in Texas has more than doubled in this period; there were 523 as of Sept. 1, 1945, and as of Nov. 1, 1946, their ranks had been augmented to a total of 1195.

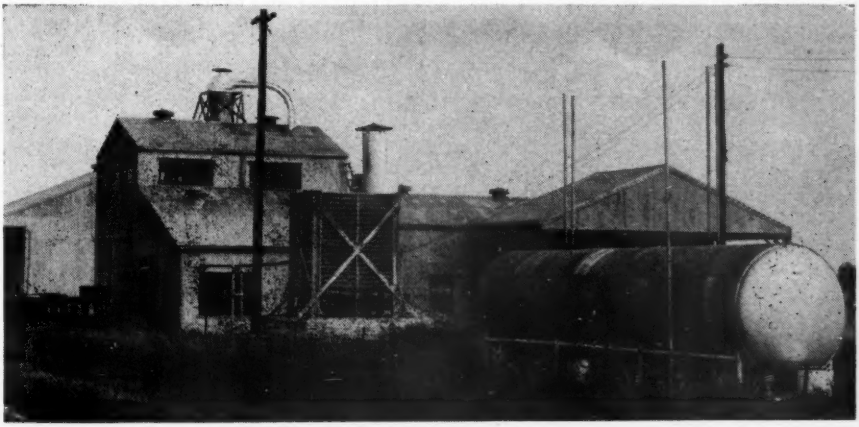
PROPERTY OF THE
SEATTLE PUBLIC LIBRARY

Other states where the growth in dealerships has been marked include Alabama, where the number increased from 47 to 87 in the first ten months of the year; Arkansas, which stepped its total up from 125 to 215, and Louisiana whose dealer roster rose from 29 at the beginning of 1946 to 84 on Oct. 31. Throughout the entire country there has been a similar increase in the number of liquefied petroleum gas dealers buying their supplies from local distributors or bulk station operators. Accurate figures are not available for other states, but new entries into the field apparently number about 6400, to bring the national total of dealers up to 18,300.

With a consuming public sold on the merits of gas fuel and with prospective customers ready, able and clamoring for the privilege of paying for it, it is obvious that the only retarding factor that existed was that of the availability of equipment to transport, install and utilize the gas.

Regulators which were in short supply early in 1946 became increasingly easier to obtain as the year went along, until by the beginning of winter manufacturers had made very substantial inroads into their back orders. In some cases, shipments booked as far ahead as for the spring of 1947 were being shipped to distributors who had placed advanced orders for that period.

As the deliveries of liquefied gas regulators by the four principle manufacturers approached the million and three-quarter mark, an unbalanced inventory situation developed which brought about a considerable number of cancellations or requests for deferred delivery dates on the existing backlog of orders. The reason for this was that in the bottled gas areas, steel cyl-



A southwestern alfalfa dehydrating plant operating on butane gas.

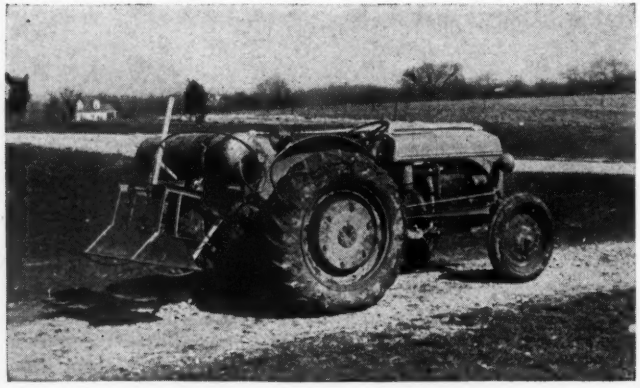
inders and appliances were lagging so far behind that regulator stocks began to accumulate for want of equipment to make complete installations.

The cylinder situation started off badly, showed some signs of improvement in the first quarter, but began again to rapidly deteriorate by midsummer. Unofficial estimates, given a measure of versimilitude by the industry, in its appeals for the allocation of steel by the Civilian Production Administration, indicated the extent of this shortage. Manufacturers with combined plant capacity to produce upward of 150,000 containers per month were operating during the late summer at an average of only 18% of this capacity. Allowing for the larger output during favorable months of January through May, it is probable that the container industry was able to produce between 35% and 40% of its capacity during the year to ship a total not in excess of 650,000 cylinders of all sizes.

Under normal conditions, this number of 100-lb. containers would accommodate only about 325,000 new accounts, allowing for an average of two cylinders per user. The statement has been made and not disputed, however, that toward the end of the war and particularly since the lifting of restrictions on new installations which came about with the cancellation of order L-86 on Aug. 23, 1945, the number of cylinders per retail account has dropped from an average of between 2 and 2½, to the present margin of 1.4. This is regarded as too few cylinders to insure good service and the maintenance of economical delivery schedules.

Dealers, anxious to start making inroads into the backlog of unfilled orders, have almost universally followed the practice of cutting down on the cylinder per customer ratio, relying on a faster turn-around, more frequent deliveries and shorter stocks of reserve containers to get them through the tight places.

In years past, a good check against estimates of new customers added in the liquefied petroleum gas industry has been the year's



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A flame weeding machine working in row crops. It burns propane.

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TABLE 1. ESTIMATED MARKETED PRODUCTION OF BUTANE AND PROPANE FOR DOMESTIC, GAS MANUFACTURE AND INDUSTRIAL FUEL USES.

	1944	1945	1946
New domestic and commercial installations...	74,000*	255,600*	1,250,000
Total in use at end of year.....	2,054,000*	2,310,000*	3,560,000
Domestic sales in gallons.....	445,617,000†	533,262,000†	874,410,000
Gas manufacturing	45,879,000†	53,849,000†	78,700,000
Industrial and internal combustion.....	254,513,000†	256,461,000†	258,512,000
Total sales excluding chemical and rubber....	746,009,000	843,572,000	1,111,622,000

* Post war revision of war time estimates
† U. S. Bureau of Mines estimates as of 12/11/46

production of gas ranges. This is for the reason that prior to the war practically every new domestic job was primarily or incidentally a cooking installation. Although there has been an ever-increasing number of multi-usage customers added, with water heaters, refrigerators and space heaters being sold along with the new service, the gas range was almost always a first consideration. But since the war, the continued shortage of steel has had practically as bad an effect on the output of gas ranges as it has had on cylinders and, consequently, the number of units of this appliance shipped by manufacturers during 1946 cannot be regarded as a criterion of the number of new liquefied petroleum gas users.

Figures take from the records of the Gas Appliance Manufacturers' Association and adjusted to the monthly reports in the "Facts for Industry" series of the U. S. Department of Commerce, indicate that the 1946 gas range production totaled 1,600,000 units for all gases, manufactured, natural and liquefied petroleum; and of these 20%, or 320,000, were for use with butane or propane. This gas range production, as inadequate as it proved to be, is approximately double the output for 1945.

We do not assume that the difference between this small output of gas ranges and the estimated 1,250,000 new customers represents non-cooking users. Many distributors report that they have been following the practice of accepting any kind of gas range available and converting the manufactured and natural gas models to the use of liquefied petroleum gas. How many of the total 1,600,000 ranges thus found their way into liquefied petroleum service cannot be estimated with any reasonable degree of certainty.

Not included in the general estimate of gas ranges are the so-called combination ranges built for gas and either coal or oil, the bungalow ranges or cookers and hot plates. In these classifications, another 265,000 units have been built, of which up to 66,000 have been

TABLE 2. AVERAGE ANNUAL CONSUMPTION PER CONSUMER

	1944	1945	1946
Domestic installations in service.....	2,054,000	2,310,000	3,560,000
Total domestic sales: gallons.....	445,617,000	533,262,000	874,410,000
Gallons per year per installation.....	212	230	245
Equivalent in 100 lb. propane cylinders.....	8.98	9.75	10.38

liquefied petroleum gas models. It must be admitted that there exists here an apparent discrepancy between new users and new cooking appliances sold. No further explanation can be found other than that many old ranges were converted to LP-Gas, and there must have been thousands of jobs installed where no cooking equipment at all could be had.

It is interesting to note, in passing, that in the field of water heating, with an estimated 1946 output of 1,250,000 units, at least 10%, or 125,000, were built expressly for use with butane or propane.

Small Manufacturing Gas Plants Go

Just as the number of consumers serviced by gas delivered in containers or dumped in bulk at the point of usage has increased rapidly, so has there been a marked acceleration in the trend on the part of gas utilities to abandon small coal or water gas generators in favor of simple installations for delivering either propane-air or butane-air through mains to city gas consumers.

Reporting as of the end of 1945, the American Gas Association advised the Bureau of Mines that liquefied petroleum gas was then being delivered through mains to 121,000 users in 247 communities by 117 companies located in 34 states. To bring this list up to date as of December, 1946, requires the addition of 57 new towns for a total of 304 communities now receiving liquefied petroleum gas piped out from a centralized plant to homes and commercial establishments.

Many Users Change Over

While an accurate tabulation of the number of meters involved has not been made, the size of communities converted over would indicate the addition of approximately 46,000 converted consumers as of the end of 1946, making a total of 167,000 receiving gas delivered as the regular fuel through city and town gas mains.

Here, again, is a category of use that has been held back only by the shortage of equipment necessary to go ahead with contemplated change-over plans. During the past year there has been no single topic of greater interest to the manufactured gas industry, as evidenced by papers and discussions at gas conventions, than the subject of changing from water-gas to propane-air as a town gas supply.

In addition to the communities where gas manufacturing has been

abandoned completely and superceded by liquefied petroleum gas service, there have been a great number of large utility standby installations where propane is being used or is planned to be used for what is known as peak shaving operations. Manufactured gas companies that have reached the limit of capacity of their existing plants are often finding it profitable to install propane storage with vaporizers, from which they can introduce a mixture of propane-air into their lines during winter peak periods.

Peak Load Costs Lower

While the cost of this gas in the larger plants is generally higher than that manufactured by the old process from coal and then enriching it with oil, the new plant investment to take care of the peak loads is very much less for the amount of initial capacity provided for.

Some of the biggest installations of this kind have been made by the Ohio Fuel Gas Co. which has put in, in two locations, a total of 110 propane storage tanks of 30,000 gallon capacity each. Consolidated Edison Co. of New York has installed 14 such tanks of the same size and, at the end of 1946 Brooklyn Union Gas Co. was completing the construction of 14 tanks, each of 25,000 gallon capacity.

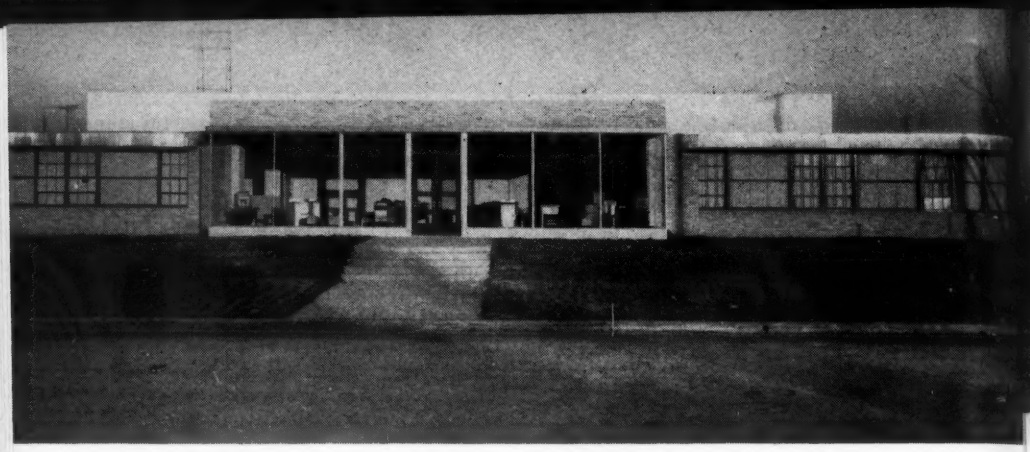
Many additional jobs of somewhat smaller total capacity had been installed or were in process of installation or planning at the end of the year, and millions of gallons of propane are now on order by various public utilities to be used largely as peak shaving fuel.

Other gas companies planning to augment their existing capacity with propane were obliged to postpone installations due to the shortage of steel for tanks. In some areas where tanks now completed were not ready to receive fuel until late fall or the beginning of winter, storages were empty or only partially filled by the end of the year. The reason for this condition was the tank car shortage which made it difficult for producers to deliver the heavy propane requirements of the established bottled gas and tank gas industry. The new load coming on top of already overburdened transportation facilities could not always be accepted.

Steel Supplies Still Tight

The outlook for the immediate future is still one of considerable uncertainty. Until steel is available for increased cylinder production, until appliances start moving into retail stores at twice or three times the present volume, and until several hundred new propane tank cars are ready to go into service hauling fuel, there can be no assurance that 1947 will be any less trying than the year that has just closed.

But if 1946 demonstrated any one thing, it did prove conclusively that even in the face of obstacles the postwar march of the liquefied gas industry has started, and the long range outlook can be regarded as the most promising in the brief but inspired history of butane-propane progress.

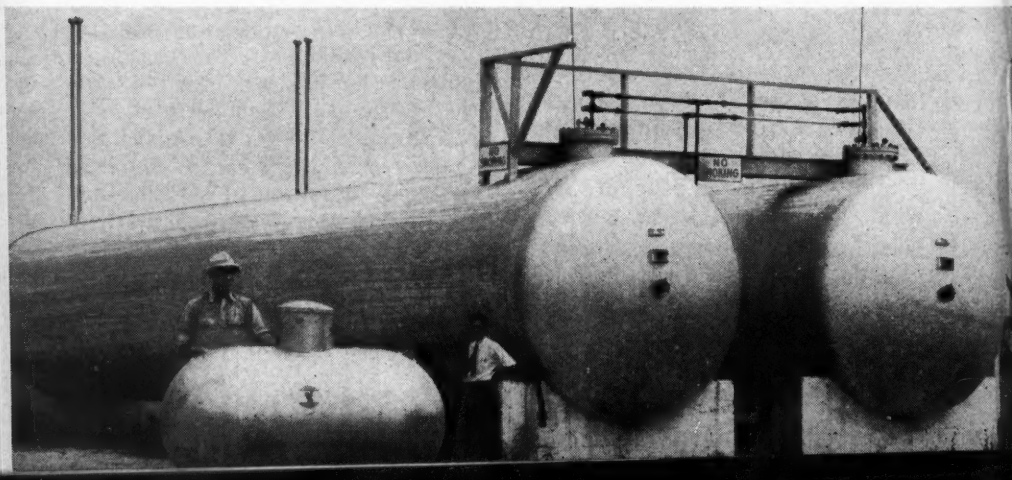


Texas Firm Finds Way to

Larger consumer storage tanks—for propane—

THE Ellis Butane Co., and its parent company the Automatic Butane Gas Co., of Houston, Texas, which combined, is one of the largest butane-propane distributors in the state, is taking effective steps to protect its customers against any possible future shortage of butane which may necessitate complete changeover to propane fuel. From a customer relations standpoint, W. G. Ellis' approach to the possible future shortage of butane is of particular value because he has consistently placed a positive rather than a negative

Above: Showroom of Ellis Automatic Butane Co., Houston, and (below) the 50,000 gal. butane-propane storage plant at Fratt, Texas.



Balance Load

By ROBERT B. FARSON

relieves winter peaks for large distributor.

interpretation on the changing supply situation.

In the summer of 1945, even before V-J Day, an attractive, three-color mailing piece was distributed through his dealers, titled, "Good News for Butane Gas Users." The good news turned out to be that a "better butane fuel—a far superior fuel — higher pressure — will not freeze up or liquefy in gas lines—new as tomorow" was being made available. The new fuel is merely higher mixture of propane with butane and the selling copy was designed to convince prospec-

Above: One of several transport tank trucks for filling bulk storage and (below) W. G. Ellis in his private office.

tive users that they must (1) install heavy duty tanks suitable for propane pressures, and (2) install tanks large enough to cut deliveries down to as few as three a year.

The added advantage of customer cooperation cited was that the tanks could be placed aboveground, and that fuel bought in quantities could be sold at lower costs.

Users Bought Larger Storage

After V-J Day and the removal of restrictions of the now defunct WPB Order L-86, the Automatic Butane Gas Co. stepped up its operation, put on an active campaign for new dealers, and intensified its insistence that every tank installed should have capacity for a least 60 days' fuel supply during the coldest winter months. To lend an air of further conviction, a letter was obtained from one of Automatic's suppliers, The Warren Petroleum Corp. This letter, which was mimeographed and distributed broadcast, is reproduced as indicative of the position that most refiners now face due to the rapid expansion of the foreign and domestic small commercial demands for butane:

"During the past 12 months we have talked to you many times, suggesting the desirability of your furnishing butane dealers with tanks suitable for the use of propane and also recommending that these tanks should be of larger capacity than most of those now being sold.

"As one of the larger suppliers of butane fuel in the Gulf Coast area, as well as other sections of the country, we are quite sure that butane dealers face the absolute necessity of using more and more propane in their sales to domestic users.

"We also wish to emphasize that the butane dealers generally will get their future supplies of fuel on a ratio basis. Before the war butane was somewhat of a by-product. At that time economic projections of gasoline and cycling plants did not contemplate full disposition of butane and propane. However, with the advent of the war so many new uses were found for butanes, such as the manufacture of 100 octane gasoline and rubber and motor fuel blending, that the product became of equal importance to the manufacturer as any other produced, and the revenue from the sale of butane became an equal factor in economic projections or 'payouts.'

"Consequently, the producer has sought markets that will absorb his product currently, and no sound thinking business man can expect the producer to waste a valuable product in the summer in order that he will have enough to supply domestic consumers in the winter. For that reason butane dealers will have to adjust their business so that they can take from the producer the same amount of butane in the summer as they do in the winter and, in order to meet the inevitable peak season demands by the domestic consumer, he must take certain steps:

"(1) He must take advantage of the supplies of propane that are becoming increasingly more available and, therefore, equip himself and his customers with equipment that will handle propane.

"(2) He must increase the size of the consumer tanks so that his customer will require the fewest amount of refills during the winter. This is just the old theory of a large coal bin.

"(3) He must have an intelligent

THE LP-GAS INDUSTRY IS TiteSeal BOUND

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TiteSeal, the indestructible gasket and joint-sealing compound, is especially compounded for use on butane, propane and other LP gases, on installations above and below the ground, and wherever the LP industry must have absolute LEAK-PROOF SECURITY.

PLEASE NOTE TOO, THAT YOU CAN OBTAIN YOUR REQUIREMENTS OF TITESEAL FROM ANY OF THE BETTER WHOLESALERS OF PLUMBING, HEATING SUPPLIES, AND EQUIPMENT.

TiteSeal DIVISION

RADIATOR SPECIALTY COMPANY
CHARLOTTE 1, NORTH CAROLINA
- RADIATOR SPECIALTY COMPANY OF CANADA, LTD., TORONTO
- GOLDEN STATE RUBBER MILLS, LOS ANGELES, CALIFORNIA

sales program and convince the consumer that the extra cost of the heavier, larger tanks will pay dividends down the years.

"This last thought is of paramount interest to the industry because the consumer does not buy his equipment for just this winter or next winter. He is making a substantial investment into the future. If shortsighted dealers insist upon selling a consumer equipment that will be useless in another year just because he thinks he can see a supply of butane for this winter, he is jeopardizing his own business, his reputation for integrity and, worst of all, furnishing irreparable damage to the whole industry which is now expanding so very rapidly to the profit of thousands of small business men and an industry that needs the good will of the public to carry it through to its rightful place."

It is self-evident that dealers must arrange their delivery and distribution program to meet the situation that faces refiners and producers. Mr. Ellis is carrying on an active program of increasing summer load use of butane and propane fuel.

Increasing conversions of trucks and truck fleets from gasoline to butane is helping a great deal. Very effective work has also been done among numerous sawmills in East Texas; over 100 engines have been converted from other fuels to butane-propane in the small or medium size sawmills operated throughout this area during the past 12 months. Intensive work for the future is planned for installation or conversion of farming equipment, tractors, combines, cultivators, pumping plants, etc.

Distributed in quantities to Automatic Butane Gas Co. dealers and to retail users on their and the Ellis Butane Co.'s prospect list, a folder accompanied the letter with a blank to be filled in, inviting an expert to call and check the facilities on existing installations.

Newspaper advertising, particularly in the small country weeklies, was started and was used continuously all during the summer and fall of 1946. The newspaper advertisments were the most insistent of any in the tone of approach employed:

"The installation of thousands of new butane systems has increased the demand for butane fuel so much that producers and refiners have notified fuel dealers generally to install larger capacity tanks in old and new installations.

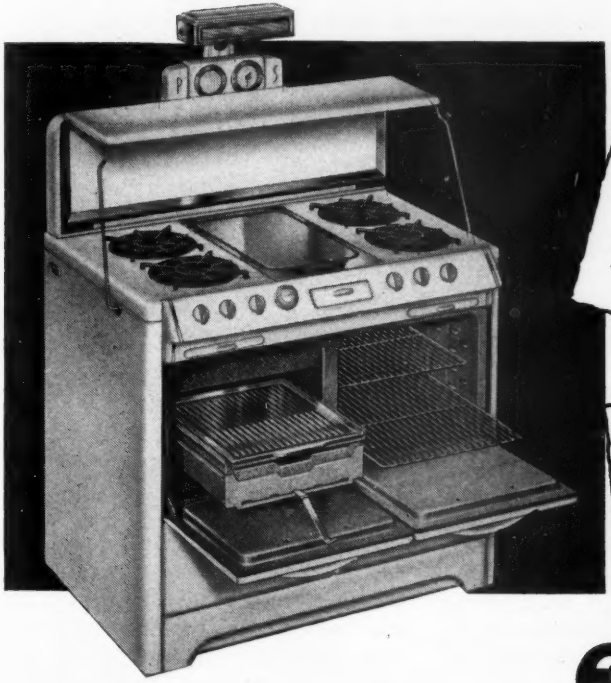
"Indications are positive that 150-gallon tanks, or smaller, requiring more than two fillings during the 90-day cold weather periods, will find it difficult, and in many cases impossible, to be serviced adequately.

"We are publishing this information as a service to butane users who have not been properly informed of factual conditions."

Mr. Ellis is gradually expanding his advertising and sales training program within his organization so that it will cover and include many of the outside dealers. This phase of the program will play a larger part with the dealer relations during the next few years. It is the surest way they have found to carry a uniform story to the consumer as to equipment and products; also the dealers are enthusiastic about the help they have been able to give them on sales training work.

The Ellis Butane Co. set up business in 1938 as a retail operation in and around Houston and Galves-

Exclusive Features That Make O'Keefe & Merritt Easier to Sell!



1

VANISHING SHELF... Handy, *step-saving* utility shelf that really vanishes when not in use!

2

KOOL-KONTROL PANEL ...Keeps top-burner gas cocks always cool. They never overheat!

3

GRILLEVATOR BROILER ...Visible, fast, finger-tip adjustment makes broiling easier than frying.

CHECK the many extra time-saving, step-saving exclusive features! A range that is factory-built and tested solely for use of Butane or Propane. You'll be proud to sell the finest O'Keefe & Merritt ever built.

O'KEEFE & MERRITT CO.

3700 East Olympic Blvd., Los Angeles 23, Calif.

Delivery truck in bulk plant yard in Houston.

ton, and was continued as such until 1941. Early in the period of the war years, the Automatic Butane Gas Co. was reorganized as a distributor operation and since that time the emphasis has been placed on acquiring and servicing dealers rather than in seeking out new retail accounts.

The original Ellis Butane Co. still continues in operation with about 2100 retail customers within a radius of 50 miles from Houston. In reality the Ellis retail consumers form the proving ground on which policies and approaches may be tried out before they are advocated and actively promoted policy-wise to the dealers.

As a result of this and other intensive campaigns, Mr. Ellis believes that within three years all of the present butane users will have switched over to propane and will have equipment adequate to store fuel supplies averaging 250 to 350 gallons per installation. In October, 1946, Automatic had 55 gas dealers who bought merchandise, tanks, and equipment, as well as gas. In addition, approximately 100 others buy only appliances and equipment, but secure their fuel supplies from other sources.

Automatic now maintains 35 bulk stations with more than 300,000 gallons combined storage capacity, mostly in propane tanks, and are selling over 24 million gallons of fuel per year. Siding facilities are available at some of these bulk stations, but many of them are filled from truck transports. The company estimates that the trans-

"It's an dependable ...It's a Payne Gas Furnace"
Payneheat
OVER THIRTY YEARS OF LEADERSHIP
GAS FUEL HAS EVERYTHING
YOUR SILENT SALESMEN
"Payneheat" Launches Campaign of Color Ads in Magazines
For a third of a century, PAYNE has aggressively promoted gas fuel along with its own quality furnaces, exclusively gas-fired. Now again in 1947 we continue our consistent advertising in support of utilities, distributors and dealers, spearheaded by a strikingly colorful magazine campaign. Reproductions of typical new PAYNE color-ads are shown above.
★ It is our hope that conditions during 1947 will favor the increased production which could well make this the gas industry's greatest year!
GAS FUEL HAS EVERYTHING
Payneheat
OVER THIRTY YEARS OF LEADERSHIP
PAYNE FURNACE COMPANY
(One of the DRESSER Industries)
BEVERLY HILLS, CALIFORNIA

portation cost by truck over Texas roads is approximately 1½ cents per gallon per hundred miles. On this basis it has proven to be economical to transport no further than 150 miles from any production point to the bulk station, and 50 miles is regarded as the reasonable limit beyond which a retail dealer cannot operate efficiently or profitably.

Prices to the consumer vary, depending upon the location and the quantities of gas used. The startling relationship between low priced fuel and consumption per customer is illustrated by the Automatic Butane Gas Co.'s accounting records. These show that 30,000 customers including dealer-served customers as well as Ellis Butane customers, use on an average of 866 gallons of fuel per year.

The campaign to induce the use of larger storage tanks became noticeably effective by last October. Whereas in the history of the company prior to May of 1946, 75% of the tanks either installed or sold to dealers were of 150 gallon capacity, this same percentage now has 250 to 350 gallon containers.

Little Difference In Cost

Rapid growth of the industry in the Texas Gulf Coast area is indicated by the fact that during the summer and fall of 1946, from 500 to 700 tanks per month were being shipped wholesale to dealers. On a basis of a 300 gallon tank, the average cost of an installation to a domestic user was $280 for a propane tank, as compared to $240 for one suitable only for butane.

In contrast to the acute shortage of steel cylinders which has beset the propane industry in bottled gas areas, Mr. Ellis reports that tank supplies have been reasonably plentiful, although pipe and tubing have in some instances delayed installation of systems on order.

New Buildings in 1946

The Automatic Gas Co. completed during the summer of 1946 a large new headquarters office building, with a modern display floor and warehouse, garage and shop facilities for storage and servicing and inspecting of warehouse stocks and repair and overhaul of the fleet of automotive equipment.

Propane to Replace Coke In Canadian City Urged

In an interim report made Aug. 10 to the Public Utilities Commission in Owen Sound, Ontario, Can., Consulting Engineer D. H. Thorburn recommended that immediate consideration should be given to the establishment of a propane gas plant to replace the present coke oven gas plant.

The plant would have a minimum of 30 days storage and could be enlarged to 60 or 90 days storage for an additional $9,000 and $17,000 respectively, Mr. Thorburn said, adding:

"All present conventional methods of gas production studied by us, when applied to present conditions at Owen Sound, resulted in a higher cost per Mcf at the consumer's meter than the liquid petroleum gas."

Standardize on
SELWYN-LANDERS S-L
L.P.G. FITTINGS

★ ROTARY GAUGES

★ COMBINATION PRESSURE GAUGE and LIQUID LEVEL VALVE

★ VAPOR RETURN VALVES

★ FIXED LIQUID LEVEL GAUGES

★ RELIEF VALVES

★ FILLER VALVES

★ CYLINDER VALVES

★ SLIP TUBE GAUGES

★ P.O.L. PIGTAILS and ADAPTERS

★ L.P.G. REGULATORS

—and many others

BETTER FITTINGS
IMPROVE
YOUR PRODUCT

SELWYN-LANDERS COMPANY

4709 East Washington Boulevard
Los Angeles 22, California

Designers and Manufacturers of L.P.G. Equipment

"Let's Face the Facts of LP-Gas Life"

By CARROLL WILLIS

President, Homegas, Inc., Wichita, Kansas

FOR the past few years, we in the industry have refused to squarely "face the facts of LP-Gas life"—and it's high time that we do it if our industry is to continue to expand.

CARROLL WILLIS

As I see them, these are our three "facts of life:"

1. With a winter load so far in excess of summer load, someone must provide huge additional storage facilities for the months of peak consumption or the consumer is going to go without fuel during those months.

2. It must be made economically profitable to persons providing those additional storage facilities; be they refiner, bulk operator or consumer.

3. The closer to the point of consumption the fuel is stored, the more desirable. No one can disagree that if every consumer had storage facilities for a full year's requirements the situation would be ideal from the suppliers' standpoint.

These three facts in my mind add up to this: The LP-Gas industry must make it economically profitable for (A) the consumer and bulk operator to have larger storage facilities and (B) for the refiner to have additional transportation facilities, even if they remain idle during a portion of the year.

It seems to the writer that a very simple solution to both points (A) and (B) could be provided if the refiner merely charged more for the fuel during the six winter months (September through February) than was charged during the remaining six months of the year.

Might Follow Coal Example

Of course, it would be better public-relations to raise the price of all fuel to the higher figure and offer a "summer discount" on fuel purchased during the six summer months, such as the coal merchant offered on coal purchased ahead of the winter heating season.

Such a plan would make it profitable for all three (consumer, bulk operator and refiner) to provide greatly expanded storage and transportation facilities.

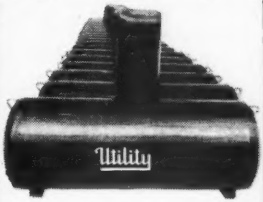
It would be profitable to the consumer to buy a 1000-gallon system instead of a 400-gallon one for the fuel savings would pay the difference in original cost. This would be particularly true if the dealer

Don't start another year without UTILITY L-P Gas Systems

YOUR CUSTOMERS WILL APPRECIATE

THEIR LONG YEARS OF SERVICE

300 GALLON ABOVEGROUND
HORIZONTAL PROPANE SYSTEM



UNDERGROUND—ALL SIZES
BUTANE AND PROPANE SYSTEMS

2000 GALLON LP-GAS
PROPANE SKID TANK

LP-GAS TRANSPORT TRUCK TANKS
- SUPERIOR PERFORMANCE
- MODERN AND ATTRACTIVE
- BUILT FOR ENDURANCE

SPHERICAL PROPANE LP-GAS
SYSTEMS—ABOVEGROUND

Utility
LP-Gas Systems
- DOMESTIC
- COMMERCIAL
- INDUSTRIAL

ASME Code of Manufacture

Prompt Shipment To You

Large Modern Plant

Eager to Serve You

Horizontal Propane System illustrated above is of U-201, ASME Construction. All other UTILITY Equipment is manufactured according to the U-69, ASME Code. Rigid inspection is given each UTILITY Vessel by the National Board of Boiler Inspectors.

BUTANE EQUIPMENT CO. INC.

3301 S. Lamar -:- H-8146 -:- Dallas, Texas

took approximately the same dollars and cents mark-up over laid-in cost on the system. Far-sighted dealers would do so for they would recognize that it costs them less than $20 more to deliver and install a 1000-gallon system than it does one of half that capacity. This $20 represents only the actual additional cost of freight, larger base, etc., involved.

Same Profit Would Result

Thus, if a 500-gallon tank retails for $350 installed, a 1000-gallon tank could be sold for around $475 and still show the dealer the same dollars and cents profit. It is the consumer that must be encouraged to install larger storage facilities, for fuel stored at the consumers is the one at the point of consumption.

Assuming the winter-summer differential were large enough, it certainly would be profitable for a refiner to provide additional tank cars, even though they were used only four peak months per year.

Even the bulk fuel operator would be encouraged to invest in additional large-size storage tanks, since these need not call for added compressors, etc. However, it must be pointed out that an additional 18,000-gallon storage tank would provide winter heating requirements for only 20 or 30 customers, since the average customer will use 500 to 700 gallons for house heating alone. That is another reason that any dealer in the fuel business should be willing to sell the consumer a 1000-gallon system at the same dollars and cents profit as he receives on the sale of a 500-gallon system—it places added storage facilities where they are most needed, on the farm.

Anyone familiar with the problems of the industry has known for at least three years that we must ultimately face the three "facts of LP-Gas life" outlined in the opening paragraphs of this article.

For many years the natural gas utility has known that they must provide pipe-line, compressor, and other facilities sufficient for their maximum winter requirements — and to charge sufficiently high rates to warrant an investment that virtually stands idle during the summer months. Why do we in LP-Gas refuse to face this fact?

Kansas Farmers Buy Heavily

In the state of Kansas, alone, more than 6000 farmers have bought LP-Gas systems of 350-gallons, or more, capacity since V-J Day. They were told of the steady, unfailing supply of LP-Gas as contrasted with possible interruptions of high-line electricity. Yet, as surely as the sun rises in the East some of those farmers will be without fuel for several days at a time this first winter they own them. A terrific "black-eye" for an industry—merely because we haven't squarely faced—and acted upon, the few simple "facts of LP-Gas life."

We must do that, and quickly, or frankly tell our customers to use oil or coal for their domestic house heating.

RELIANCE REGULATORS

ARE DESIGNED AND TESTED TO MAKE L-P GAS BEHAVE

A Reliance Regulator will make gas behave in every conceivable regulating application in the liquid petroleum industry. The wide range of sizes with many variations of Reliance Regulators provide positive and uniform control for all pressure conditions in L-P gas lines.

Since the birth of the L-P gas industry, Reliance Regulators have been preferred for their originality of design, by which positive lock-up and absolute control of steady outlet pressure are assured under variable loads and inlet pressures.

Simplicity reduces installation costs, minimizes maintenance service, reduces size and weight for convenient handling. To make your L-P gas system behave, install Reliance Regulators.

BULLETINS ARE AVAILABLE ON THE COMPLETE LINE OF APPROVED RELIANCE REGULATORS.

AMERICAN METERS

RELIANCE REGULATORS

RELIANCE REGULATOR CORPORATION
1008 MERIDIAN AVENUE, ALHAMBRA, CALIFORNIA

NBPA Names New President And Sets 1947 Convention Date

JOHN M. Robinson, of the Butane Gas Co., Woodworth, La., has been elected president of the National Butane-Propane Association to succeed J. Richard Verkamp. Mr. Verkamp is retiring because of the pressure of other activities. Mr. Robinson was elected first vice president of the organization during the Chicago convention in September.

Joseph S. Fagan, Mutual Liquid Gas & Equipment Co., Inglewood, Calif., moves up to the first vice presidency. W. A. Moey, who acted as manager of the recent convention, will occupy the newly created position of assistant secretary.

All these changes are the result of a joint executive committee and board of directors meeting, held in Chicago, Dec. 6-7.

At the same meeting the Jefferson hotel, St. Louis, Mo., was selected as headquarters for the National Butane-Propane Association 1947 annual convention. The dates of the meeting will be September 15-17. It is planned to hold a trade exhibit in connection with the convention.

The 1947 convention committee consists of the following members: H. G. Baur, Butane Gas & Appliance Co., St Louis, chairman; S. Beske, Kay Gases Co., Chicago; Joseph S. Fagan, Mutual Liquid Gas & Equipment Co., Inglewood, Calif.,; W. E. Fraley, Fraley & Co., Abilene, Texas, and Earl C. St. Cyr, Cyr Bottled Gas Co., Marquette, Mich.

J. M. ROBINSON

JOS. S. FAGAN

Other committees and their chairmen are as follows:

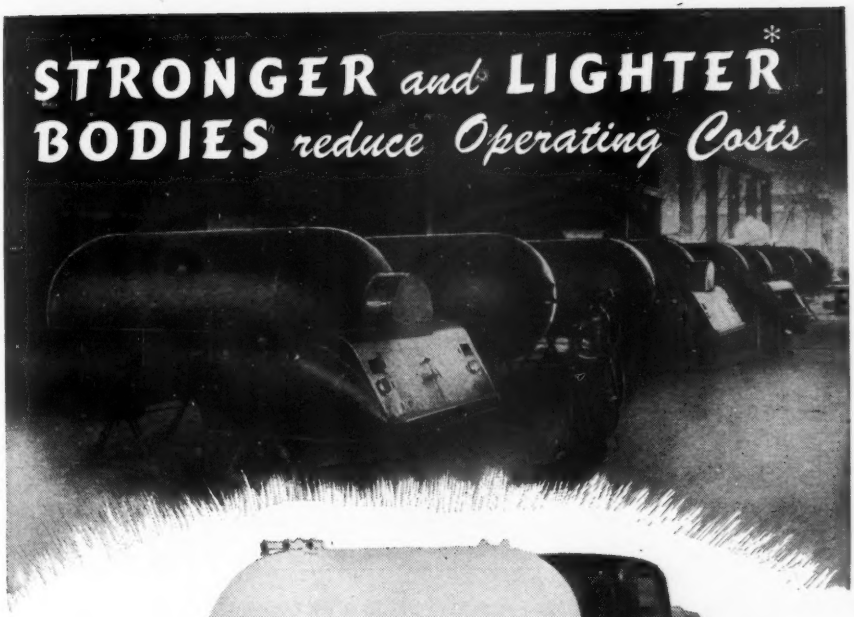
Membership Committee—John L. Locke, Northwestern Blaugas Co., St. Paul.

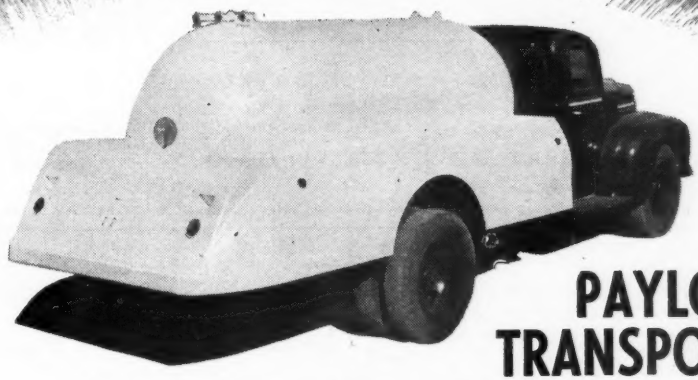
Public Relations Committee—W. T. Joplin, Joplin Bottled Gas Co., Phoenix, Ariz.

Safe Practices Committee—R. J. Coughlin, Westland Oil Co., Minot, North Dakota.

The board of directors tentatively approved a plan through which the association would make an attractive insurance program available to its active members, this insurance to be for the benefit of members and their employes to provide life insurance, accidental death and dismemberment benefits, weekly accident and sickness benefits, hospital and surgical expenses.

STRONGER and LIGHTER* BODIES reduce Operating Costs





PAYLOAD TRANSPORTS

"Handle the Load with Loads to spare."

- LIGHTER IN WEIGHT
- Modern, Advanced Design
- Readily Mounted on Any Wheelbase Chassis
- Safe, Secure ASME Construction
- National Fire Board Inspection

Write for Pamphlet Giving Further Information

SOUTHLAND STEEL CO. INC.

5219 MAPLE AVENUE DALLAS, TEXAS

WE HAVE PLENTY OF
I. C. C. BOTTLES
for immediate delivery

THREE SIZES

★

HEAVY GAUGE STEEL

Five-gallon size

The ONLY I.C.C. bottles with a 5 to 1 SAFETY FACTOR

Made to exacting ASME specifications—the best I.C.C. bottles ever produced. Walls are heavy gauge steel. All sizes come with standard P.O.L. valve including pop-off valve, and with standard 10% valve. GUARANTEED APPROVED AND FILLABLE IN EVERY STATE IN THE UNION. Available NOW in unlimited quantities.

Capacity	Dimensions	Weight	Price	Stock Number
5 gal. (20-lb.)	17" high, 14" diam.	36 lbs.	$11.50	T-400-5
8 gal. (32-lb.)	17" high, 31" long, 10" diam. (horizontal)	40 lbs.	$18.30	T-400-8
10 gal. (40-lb.)	22" high, 21" long, 14" diam. (horizontal)	58 lbs.	$21.00	T-400-10

All bottles shipped F.O.B. Los Angeles. Prices subject to change without notice.

Write or Wire Our Department 25

Coast-to-Coast
TRAILER SUPPLY COMPANY
Main Office
823 WEST SECOND ST., LOS ANGELES 12, CALIFORNIA
AMERICA'S LEADING WHOLESALE DISTRIBUTOR OF TRAILER PARTS AND SUPPLIES

1945 REPORT

Industry Grew 20% in Last War Year

SALES* of liquefied petroleum gases increased from a revised total of 1,060,156,000 gallons in 1944 to 1,276,766,000 in 1945—a gain of over 20%, according to reports submitted to the Bureau of Mines, United States Department of the **Interior.**

If material delivered for synthetic rubber components is omitted in order to arrive at totals comparable with those of former years, the gain in sales was about 19% in 1945 (1,067,979,000 gallons in 1945 and 898,071,000 in 1944) compared with increases of 33% in 1944 and 15% in 1943. (See figures, Tables 1,2.)

The ending of the war in the latter part of 1945 released some liquefied petroleum gases for civilian consumption, however, shortages of equipment for transportation and use of these gases still continued and, consequently, potential markets were not fully supplied.

All uses of liquefied petroleum gases gained substantially in 1945 over 1944 except quantities reported for industrial consumption and internal combustion engine fuel. Distributors delivered 533,262,000 gallons for domestic use (household consumption) in 1945—a 20% gain

* Prepared by A. T. Coumbe, Petroleum Economics Division, Economics and Statistics Branch.

TABLE 1. SALES OF LIQUEFIED PETROLEUM GASES IN THE UNITED STATES, 1938-1944

(Thousands of Gallons)

Year	Butane	Propane	Butane-propane mixtures	Pentane	Quantity	Total percentage increase over previous year
1938	52,768	54,130	56,050	2,253	165,201	16.8
1939	71,351	79,323	69,020	3,886	223,580	35.3
1940	77,056	109,216	123,348	3,836	313,456	40.2
1941	112,244	126,969	219,252	4,387	462,852	47.7
1942	128,560	150,511	301,917	4,452	585,440	26.5
1943	140,122	218,273	312,683	4,155	675,233	15.3
1944[1,2]	122,870	324,355	450,846	(5)	898,071	33.0
1944[2,3]	273,116	335,884	451,156	(5)	1,060,156	..
1945[4]	325,140	444,581	507,045	(5)	1,276,766	20.4

1 Without synthetic rubber components for comparison with 1943. 2 Revised. 3 Includes material delivered for synthetic rubber components. 4 Subject to revision. 5 Not available.

6 reasons why Scaife best

ADVANCED ENGINEERING

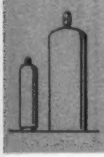
—assures designs that meet the most severe requirements of LP-Gas service. Experience gained through the years gives us a broad knowledge of correct design for every need.

SCIENTIFIC RESEARCH

—by the Scaife Fellowship of Mellon Institute of Industrial Research, and by our Process Laboratory, assures highest quality and modern fabrication techniques.

MODERN PRECISION EQUIPMENT

—is employed in the manufacture of Scaife Cylinders, assuring uniformity through every phase of production.



MANUFACTURING SKILL

—is reflected in the added service you get from Scaife products. This skill contributes to the economy, safety, appearance and dependability of all Scaife LP-Gas Cylinders.

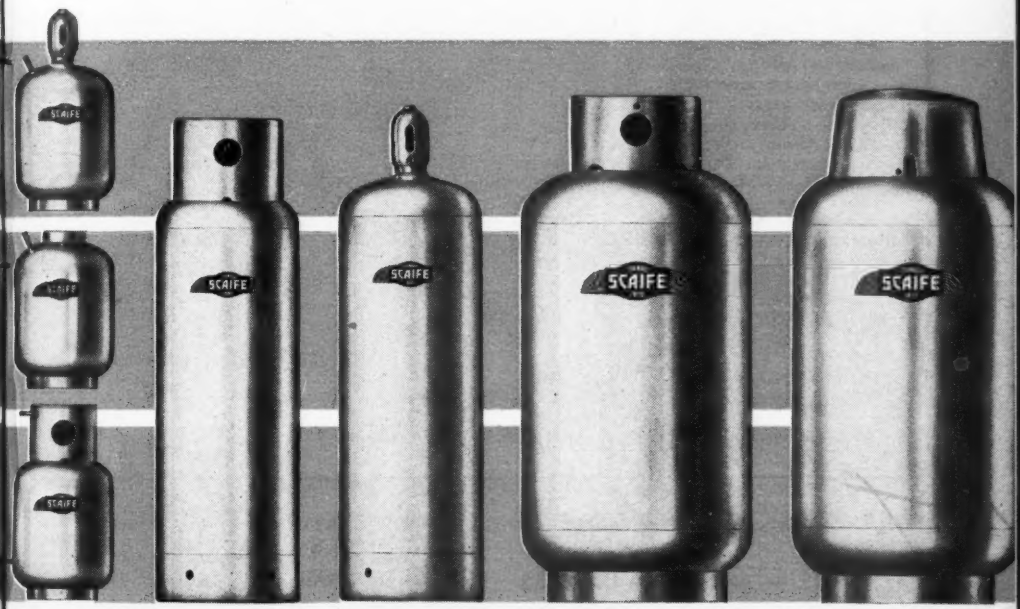
CONSTANT PRODUCT DEVELOPMENT

—keeps Scaife in step with newest production methods and product improvements.

QUALITY CONTROL

—through rigid tests by air, water and under impact makes every Scaife Cylinder uniformly dependable.

ife Cylinders are
st for every LP-Gas need



Write for Bulletin No. 321

This new Bulletin illustrates the wide range of Scaife Cylinders available for every LP-Gas need, with complete details on capacities, dimensions and approximate weights for Butane, Propane and Water. Write for your copy today!

SCAIFE COMPANY

Founded 1802

OAKMONT (Allegheny County), PA.

Representatives in Principal Cities

West Coast Distributor, Paramount Mfg. Co., San Francisco, Calif.

TABLE 2. MARKETED PRODUCTION[1] OF LIQUEFIED PETROLEUM GASES BY USES AND REGIONAL DISTRIBUTION, 1944-45
(Thousands of Gallons)

	Total—All Sales			
	—1945 [2]—		—1944 [3]—	
	Total	Pct. of Total	Total	Pct. of Total
Domestic	533,262	41.8	445,617	42.0
Pacific Coast area	93,486	7.4	80,530	7.6
All other areas	439,776	34.4	365,087	34.4
Gas manufacturing	53,849	4.2	45,879	4.3
Pacific Coast area	13,906	1.1	11,501	1.1
All other areas	39,943	3.1	34,378	3.2
Industrial fuel	163,121	12.8	162,018	15.3
Pacific Coast area	14,154	1.1	13,559	1.3
All other areas	148,967	11.7	148,459	14.0
Synthetic rubber components	208,787	16.3	162,085	15.3
Pacific Coast area	9,204	0.7	5,876	0.5
All other areas	199,593	15.6	156,209	14.8
Chemical manufacturing	224,291	17.6	151,985	14.4
Pacific Coast area	16,965	1.3	19,084	1.8
All other areas	207,326	16.3	132,901	12.6
Internal-Combustion engine fuel	93,340	7.3	92,495	8.7
Pacific Coast area	39,474	3.1	36,314	3.4
All other areas	53,866	4.2	56,181	5.3
All other uses	116	...	77	...
Pacific Coast area	22	...	49	...
All other areas	94	...	28	...
Total sales	1,276,766	100.0	1,060,156	100.0
Pacific Coast area	187,211	14.7	166,913	15.7
All other areas	1,089,555	85.3	893,243	84.3

1 In continental United States only. 2 Subject to revision. 3 Revised.

over the 1944 demand of 445,617,000 gallons.

It should be noted that the 1945 rate of expansion for domestic requirements was somewhat below that recorded for 1944-29%—and furthermore, the annual percentage of increase is again headed downward as it was in 1942 and 1943. Incidentally, deliveries of liquefied petroleum gases for domestic fuel represented about 42% of total sales for all purposes in both 1944 and 1945.

Quantities of liquefied petroleum gases credited to manufactured-gas companies—constituting about 4% of all demands—have been on a steady upward trend in recent years and the 1945 total of 53,849,000 gallons was 17% above 1944 requirements of 45,879,000 and more than double the 1941 item of 25,255,000 gallons.

Liquefied petroleum gases diverted for the manufacture of synthetic rubber increased from 162,085,000 gallons in 1944 to 208,787,000 in 1945—a 29% gain. The 1945 quantity represented about 16% of all deliveries of liquefied petroleum gases compared with a 15% share in 1944.

Chemical manufacturing plants use liquefied petroleum gases as raw material and the requirements have

First home NEARS COMPLETION IN THE CHICAGO TRIBUNE'S PRIZE HOME BUILDING PROGRAM

Veteran's home features ceiling radiation heating system using a Bryant Model 26 Boiler

Near completion in suburban Chicago is this attractive ranch style house, the first of 22 new Metropolitan Chicago homes being constructed in the Tribune's Prize Homes Building Program. Like all others in the Program, the house will be owned by a veteran and is being built from a design which won an award in the Tribune's recent Chicagoland Prize Homes Competition.

Featured in this house is a comparatively new radiant heating method in which the pipes and radiant coils are embedded in the ceilings. Walls and ceilings are insulated with rock wool as part of the heating arrangement. Heat source for the system is a Bryant Model 5-W-26 Boiler, with an output of 90,000 btu per hour.

The Bryant Model 26 Boiler, long a favorite in the nation's home radiation heating systems, is made in ten sizes to provide for a wide range of hot water or steam applications. Bryant Heater Company, 17825 St. Clair Avenue, Cleveland 10, Ohio. *One of the Dresser Industries.*

bryant
GAS HEATING
LET THE PUP BE FURNACE MAN

mounted to important items in the late war years—increasing from 151,985,000 gallons in 1944 to 224,291,000 in 1945—a 48% increment. Sales of liquefied petroleum gases credited to chemical plants forged ahead of the synthetic-rubber total in 1945, and furthermore, the proportionate share going for chemical raw material rose to about 18% of all deliveries in 1945 compared with 14% of the total in 1944.

Industrial Field Stationary

Sales of liquefied petroleum gases for industrial fuel of 163,121,000 gallons in 1945 differed little from 1944 requirements of 162,018,000 gallons. The small increase in this demand in 1945 reflects not only the sudden tapering off in the war industries towards the close of the year, but it is also partly the result of transportation and equipment difficulties connected with the distribution and use of this fuel. It can be added that liquefied petroleum gases sold to industrial plants dropped from 15% of total market deliveries in 1944 to a 13% proportion in 1945.

Distributors reported 93,340,000 gallons of liquefied petroleum gases as diverted for internal combustion engine fuel in 1945—a 1% gain over 1944 requirements of 92,495,000 gals. This small increase is well below gains of 7% and 5% indicated, respectively, for 1943 and 1944.

The American Gas Association is the source of the following information regarding the distribution of liquefied petroleum gases by manufactured-gas companies in 1945:

"At the end of 1945, liquefied petroleum gas was being delivered through mains to 121,025 consumers in 240 communities by 117 companies, in 34 states.

"Butane-air gas with heating value ranging from 520 to 1,600 Btu per cu. ft. was supplied 178 communities in 32 states.

"A mixture of undiluted butane and propane gas with heating value of 2,800 to 3,000 Btu per cu. ft. was supplied 20 communities in Arizona, California and New Mexico.

"Undiluted propane gas with heating value of 2,550 Btu per cu. ft. was supplied 42 communities in Maryland, Minnesota, Missouri, New Jersey, North Dakota, Virginia and Wisconsin."

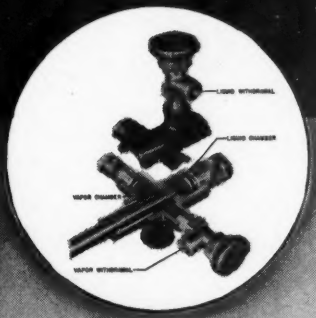
REVISED ITEMS—PACIFIC COAST AREA

(Thousands of Gallons)

	Butane	Propane	Butane-propane mixtures	Total
1942				
By uses:				
Domestic	1,567	15,676	29,027	46,270
All other uses	475	...	...	475
1943				
By uses:				
Domestic	1,473	18,956	39,099	59,528
All other uses	...	...	70	70

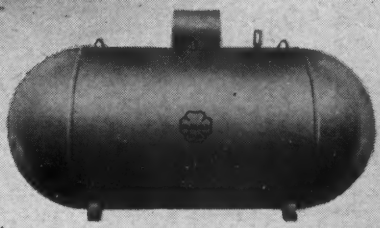
McNamar

BUTANE AND PROPANE



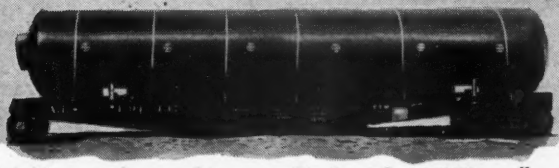
LIQUID LINE HEAD

- DOMESTIC TANKS
- COMMERCIAL AND INDUSTRIAL TANKS



Above and Below ground propane systems fabricated with hemispherical heads afford greater volume at less weight. Prices, delivery, and specifications on sizes 350 gallons to 1,000 gallons given upon request.

- STORAGE TANKS



At McNamar large Storage Tanks of 18,000 gallon and 30,000 gallon capacities are made according to the U-69 ASME Code of Construction. All vessels are subject to the approval of the National Board of Boiler Inspectors.

Write for Booklet "LP-Gas Data."

McNamar Boiler & Tank Co.

Box 868 Tulsa, Okla.

COMPANION
House Beautiful
House & G
OVER 16,000,000 FAMILIES
ABOUT THE NEW SERVEL
True
POST
Sellout in Yugoslavia
The American Home
15¢
House Beautiful
Better Homes
and
American
POST
COMPANION

A MONTH WILL READ
GAS REFRIGERATOR
Cosmopolitan
COMPANIO
Better Homes
HOUSE BEAUTIFUL
More Production
Means Better Living for You
We're Getting Ready for War in Alaska
True Story
HOUSEKEEPING
American

Dearborn means..

See Dearborn's Display—January Market, Chicago Booth 17-32

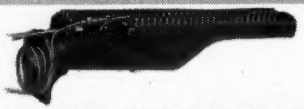
Model DRC25

SALES... SAFETY... SATISFACTION!

The precision - made High - Crown Burner and the famous Dearborn cabinet, cooled by the air-stream drawn through the patented Dearborn chassis, combine to give your customers a new conception of LPG efficiency and comfort.

Check the "sellable" features of the vented and unvented Dearborns. Check them against any other heaters on the market—and you'll see why more and more dealers are featuring Dearborn!

THE WORLD'S FINEST, SAFEST LPG HEATERS!



THE DEARBORN HIGH-CROWN BURNER

- Beveled Crown
- Raised Ports
- Long Venturi
- Large Air Bell
- Interior Diverters
- Top-Quality Valves
- Rigid Mounting
- Large Interior Area

No Flashback ★ *Complete Combustion*

AMERICAN GAS ASSOCIATION — COMPLIES WITH NATIONAL SAFETY REQUIREMENTS — APPROVED

Dearborn STOVE CO.

1700 WEST COMMERCE DALLAS, TEXAS

LOS ANGELES • CHICAGO

QUIZ — Electric Competition - Part 3

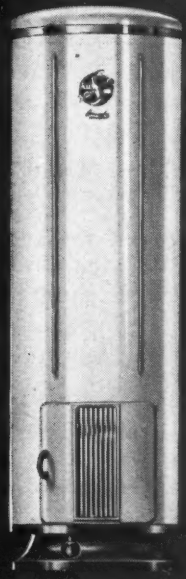
• *This department is a monthly feature to stimulate thought and to give operators basic industry facts. Clip out for your notebook or file in a standard, 3-ring, loose-leaf binder. Sources of information: The Bottled Gas Manual, Handbook Butane-Propane Gases.*

Questions	Answers
1	
Assuming the electric industry has done a better promotional job than the gas industry, what can you, as an LP-Gas dealer, do to overcome it?	Read and analyze as much electric propaganda as you can obtain and interpret it in gas terms.
2	
What is the first important step to take in getting this information?	Obtain copies of the various electric rates in your territory and then work out a set of gas prices that are equivalent.
3	
Will the gas rates be favorable or not?	In most areas you will find that the equivalent gas prices will be sufficiently high so that you will be able to sell competitively at a good profit.
4	
What other material is available to obtain electric information?	Read the advertising in the national magazines on electric appliances and note the facts they stress and you will be able to find a better gas answer.

5 **What other way can this advertising be of help?**	Note the facts that are not stressed or are put forth in a general way without any proof behind them. Compare these with your gas information and you will find some good selling points.
6 **What additional source of information is available to study the electric competition?**	There are a number of electrical trade journals that contain valuable information to the LP-Gas dealer which show the efforts being put forth by the electric industry to compete with gas for the rural load.
7 **What is another way to help build potential gas load by using the electric industry?**	Work with your local school boards to get both gas and electric ranges into the domestic science departments. Side-by-side results will sell the advantage of gas in the long run.
8 **Why are many women happy with an electric kitchen?**	Many of these people have never had the experience of operating a modern gas kitchen and compare their results with either antiquated gas equipment or oil or kerosene stoves.
9 **In rural areas when electric lines are about to be extended, how can the gas load be protected?**	Show your customer the difference in cost of operating the kitchen on gas, plus the cost of electricity for lights and radio, against the overall cost of operating an all-electric kitchen.
10 **What is the by-word to remember when up against electric competition?**	Gas is the best all-round fuel.

SUBJECTS TO BE COVERED IN FORTHCOMING ISSUES:
● Competitive Fuels ● Electricity ● Gas Lighting ● Space Heating ● Tools for Your Kit.

Ever Walk Inside a 40-foot SMITHway Permaglas Tank?



Huge SMITHway tanks like this—a single piece of glass-fused-to-steel—are used by leading brewers everywhere to guard the purity of their beers. Sparkling blue and mirror-smooth, the lustrous interior resists all rusting, staining, corroding.

That's why SMITHway *Permaglas* Water Heaters, too, CANNOT rust or corrode under *any* water condition. The glass-fused-to-steel tank does away with "tank rust spots" on clean laundry and corrosion dirt in the bath.

The *Permaglas* Water Heater stores and delivers hot water as clean as the source itself!

There's Only ONE "*Permaglas*"

A Great Aid to Sales!

The same manufacturing mastery that produces huge glass-lined tanks for brewers and food processors produces *Permaglas* Water Heaters.

It's the most dramatic new sales story in the appliance business. Send for it today... ask for "*The Inside Story of Permaglas.*"

Heated with Gas...Stored in Glass!

Permaglas

AUTOMATIC • STORAGE WATER HEATERS

A. O. SMITH Corporation

NEW YORK 17 • ATLANTA 3 • CHICAGO 4
HOUSTON 2 • SEATTLE 1 • LOS ANGELES 14

INTERNATIONAL DIVISION: MILWAUKEE 1—Licensee in Canada: JOHN INGLIS CO., LIMITED

Safety Demonstrations Carried To Dealers in Texas Program

By WM. J. LAWSON
Executive Secretary, Texas Butane Dealers Association, Austin, Texas

WHEN the butane dealers in Texas found that they were experiencing too many difficulties in getting insurance coverage under the provisions of their state laws, they decided to take stock and see what was the matter. Through their association, they found two things that appeared to be fundamentally wrong.

First, the records seemed to indicate that the losses were running too high compared to the premiums which were being paid in to the insurance companies.

Second, there appeared to be a great confusion and misunderstanding on the parts of both the butane dealers and the local insurance agents who were supposed to be providing the insurance policies.

LYLE BLANTON

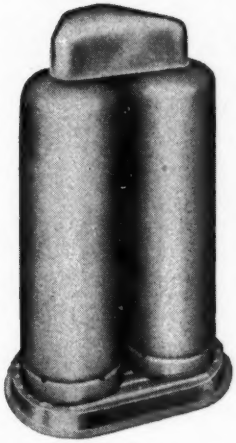
WM. J. LAWSON

Under the Texas laws all persons engaging in any form of the butane-propane business in the state must have a license from the Gas Utilities Division of the Railroad Commission, and one of the prerequisites for such a license is the filing of certain minimum types and amounts of insurance coverage. Insurance companies were loath to provide the protection due to the high loss ratio and the great amount of misunderstanding which seemed to prevail in regard to liabilities and legal requirements.

In March, 1946, the Texas Bu-

Leaders of the liquefied petroleum gas industry in Texas have been doing an outstanding job in promoting safety. The movement was started and has been conducted by the Texas Butane Dealers Association which has arranged for district demonstrations and lectures so dealers would not have to go far to attend.

The accomplishments of these meetings are recited in the accompanying article by Wm. J. Lawson, executive secretary of the Association and managing editor of the "Texas Butane News," the Association magazine.—Editor.



THE D-1

CHOOSE
THE HOUSING YOU WANT FROM THIS FULL LINE

THE H-1

STAMPINGS
INCORPORATED

THE H-2

YOU are not limited to one model when you select Stampings, Inc. as your source of bottled gas housings. Here you have a *wide selection* of models backed by years of experience in the design and production of housings. Write for prices and details.

STAMPINGS, INC.
DAVENPORT, IOWA

THE SH-1

tane Dealers Association undertook to clear up both of those points. Beginning with a conference in Mt. Pleasant, which was attended by 155 persons, there followed during the next eight months 17 other similar conferences, in which butane operators were briefed upon the technique of the insurance laws, the policy provisions, the liabilities assumed by both parties, the methods of arriving at rate structures, and some safe practices which were recommended by insurance safety engineers which would tend to hold down losses within the industry.

Because of the large number of new employes entering the LP-Gas industry, it was decided by the Texas Butane Dealers Association to provide for them a brief exhibit showing the properties, hazards, and characteristics of LP-Gas, the vessels it is handled in, and the appliances which consume it.

The U. S. Bureau of Mines provided this needed instruction and assigned its two safety engineers stationed in Dallas to present its safety demonstration entitled the "Magic of Fire." G. M. Kintz, supervising engineer, District G, was in charge of this demonstration and was assisted by H. F. Browne and J. S. Jackson.

This series of insurance and safety clinics attracted 1100 persons from the LP-Gas industry in Texas. Fire chiefs and fire marshals from 22 towns and cities also participated, as well as many local insurance agents. Representatives from the Texas Railroad Commission and members of a number of city safety and fire prevention com-

View of "Magic of Fire" demonstration. H. F. Browne, left, and G. M. Kintz, Dallas, Tex.

THE BOTTLED GAS MANUAL

A field guide and text book for dealers, salesmen and servicemen

352 Pages of Answers to Every Day Questions About Liquefied Gases, Appliances and Equipment

These Are the Chapter Headings

What Is Propane?
The Behavior of Gases
Heat and Temperature
What Goes On Within a Propane Cylinder?
The Simple Regulator
Regulator Manifolds
Regulations—Equipment Selection and Installation
LP-Gas Pipe Lines
Testing for Leaks and Adjusting Burners
Fundamentals of Thermostats
Pilots and Pilot Controls
Burner Design and Application
Appliance Conversions
Facts About Water and Water Heaters
Types of Water Heaters
Selecting and Installing the Water Heater
Competitive Fuels—Wood
Competitive Fuels—Coal
Competitive Fuels—Oil
Competitive Fuels—Electricity—Rates and Refrigeration
Competitive Fuels—Electricity—Cooking and Water Heating
Gas Lighting
Space Heating
The Tools of Our Profession

We pay postage on orders accompanied by check or money order. In California add 10c for sales tax. In Canada add 40c for excise tax.

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HENRY HERNDON

A. W. PENN

ROBT. A. HICKS

mittees also took a part in them.

Robert A. Hicks, manager of the Texas Service Office of the Keystone Mutual Casualty Company, handled the insurance sections in regard to policy provisions, rates, territories, and types of coverages.

Liabilities arising under the provisions of the various policies and bonds were explained by A. W. Penn, director and attorney for the bond division of the Texas State Insurance Commission. Although the Texas law permits the filing of surety bonds in lieu of insurance policies, Mr. Penn directed attention to the wide difference in the kind of protection provided by the two.

The various types of engineering and safety services which are available to policy holders through the safety divisions of the insurance companies were stressed by Henry Herndon, safety engineer for the Texas Employers Insurance Association, of Dallas. The use of employe training programs, safety manuals, thorough knowledge of the Railroad Commission rules and regulations as they apply to the LP-Gas industry, and other safe practices were stressed by Mr. Herndon.

Meetings were presided over by Wm. J. Lawson, executive secretary of the Texas Butane Dealers Association, with headquarters in Austin. In addition to the meeting held in Mt. Pleasant, others were held in Wichita Falls, Brady, Lubbock, Midland, Abilene, Ft. Worth, Dallas, Tyler, Lufkin, Beaumont, Houston, Victoria, Harlingen, San Antonio, Austin, Waco, and Amarillo.

Lyle Blanton, of Hereford, Texas, president of the Texas Butane Dealers Association, said: "The butane industry in Texas has grown fast and in many cases without proper direction, and as a result it has absorbed a great many men who do not have the background or training in safety and the attendant problems of insurance. We know that as a result of these 18 conferences attended by more than a thousand persons our industry is going to be a safer one, a more orderly one, and certainly more profitable to the dealers."

FEATURES GALORE!

in the Line of the Leader!

GARLAND
Restaurant
Gas Range
No. 83

Always—there are good reasons why the leader is in first place. Pictured here are just a few of the features which have made the Garland Restaurant Line so popular everywhere. Write for information which will help you select the model you need.

FLEXIBILITY!
Four individually controlled burners for griddle and broiler.

CONVENIENCE!
Automatic lighting for each of the top burners.

CONVENIENCE!
Removable open grate sections over each top burner.

SOUND DESIGN!
Oven design provides thorough heat circulation.

LONG LIFE!
Oven door springs located out of the high heat zone.

CONVENIENCE!
Wide high shelf for plates and serving dishes.

STRENGTH!
Strong all-steel construction to withstand hard service.

GARLAND

THE TREND IS TO GAS
FOR ALL COMMERCIAL COOKING

A Product of Detroit-Michigan Stove Co., Detroit 31, Michigan

Laws Made and in the Making

HIGHLIGHTS of legislative matters pending and enacted, are contained in a recent bulletin issued by Arthur C. Kreutzer, legal counsel for the Liquefied Petroleum Gas Association:

Freight Rates:

(1) The Interstate Commerce Commission in I & S Docket 5439 suspended rail tariffs placing a minimum rate on less than carload shipments of LP-Gas between official classification territory and Southern areas.

(2) The ICC, on Nov. 21, in Docket 29433 ordered carriers to use the estimated weight of 4.7 lbs. per gallon on shipments from southern Illinois to Southern territory.

(3) The Illinois Freight Association has recommended to its member carriers that they cancel exception ratings, commodity rates and estimated weights on LP-Gas within Illinois freight territory. This territory includes all points within the State of Illinois, the Chicago switching district, west bank Mississippi river crossings in Iowa and Missouri and points in Wisconsin as far north as Madison and Milwaukee. It is expected that the carriers will issue tariffs effecting such cancellations in the near future.

(4) As a result of protests by the Association and members of the industry, the Midwest Motor Freight Bureau, in Docket 4367, has rejected a proposal to place a minimum rate of fifty cents per hundred pounds weight on the return of empty steel cylinders.

Installment Credit Restrictions:

Although some items have been released from the controls of Regulation W, effective Dec. 1, 1946, installment credit purchases of major appliances will remain under control, with one change in the restrictions that will extend maximum maturity from 12 months to 15 months.

Copper Tubing (CPA):

P. R. 33 Schedule B as amended Nov. 12, 1946, clarifies the extendibility of HHH and HH ratings on copper tubing ⅜" to 1" and copper fittings—solder pressure types for ⅜" to 1" tubing, by specifying that such ratings are extensible to the supplier who buys from the manufacturer.

State Legislation:

The state fire marshals in Massachusetts and Michigan have in preparation new regulations covering LP-Gas. A legislative sub-committee, in each instance, is actively participating in the preparation of these regulations. Both fire marshals have been exceedingly cooperative and it is believed that the regulations will be fair both to the public and the industry.

Members of the industry in Missouri met in Jefferson City Nov. 25 to consider the formulation of a state law covering LP-Gas. The LPGA model state law has been submitted for consideration and it is expected that the model law, or an adaptation to meet local conditions, will be approved.

The Wisconsin Industrial Commission has begun work toward the issuance of LP-Gas regulations. Under the Wisconsin statutes an industry advisory committee must be consulted. The Commission has initially submitted a rough draft to members of the industry, but no further steps have been taken.

NEW...

Available for Immediate Delivery!

CONSOLIDATED

Blue Flame

L-P GAS CONVERSION BURNER

SETTING NEW RECORDS FOR BURNING EFFICIENCY

● Every test to date on this new Consolidated burner has shown unusual efficiency ratings. Every installation to date has been an unqualified success. And these burners are flowing off the line in Consolidated's new and highly modern plant at a rate that makes immediate deliveries possible.

Here is another product of Consolidated's brilliant engineering staff — a product of design and manufacture by an executive group each with ten to twenty years' experience in the automatic heating industry. It is another example of what can be done when sound planning is backed by every advancement in modern tooling and modern plant layout.

Every part of every model in the Consolidated Gas Burner line has been developed with these objectives in mind: compactness of design, maximum ease of installation, freedom from service worries, top burning efficiency.

We are interested in hearing from dealers and distributors who can market a line of year 'round profit-makers in automatic heating and low temperature freezing for home and industry. We have an unusual set-up to offer. A wire, phone-call or letter will get immediate attention.

CONSOLIDATED INDUSTRIES, INC., LAFAYETTE, INDIANA

Manufacturers of Automatic Heating and Low Temperature Freezing Products for Home and Industry.

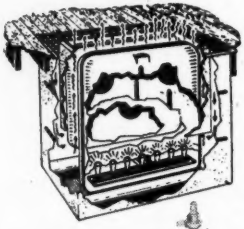
EVERY ONE, EVERYWHERE IS TALKING ABOUT *Empire*

Such wide public acclaim and acceptance is earned by building the best

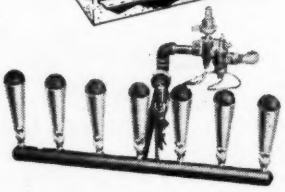
The eminently satisfactory performance and high quality of Empire is the result of many years of designing and production experience. Development is constant in an effort to provide only the best.

Thousands of satisfied users are staunch boosters for Empire. Friends sell friends. The second generation is sold by first generation users. Ask any of the more than 4000 Empire dealers.

Empire is a National Organization. Regardless of your location, there is an experienced Empire direct factory representative available and willing to assist you.



Buy *Empire* and You Buy the Best



Empire **manufactures outstanding Gas Floor Furnaces and Gas Circulator Heaters**

Empire Stove Company

BELLEVILLE, ILL.

MANUFACTURERS OF GAS HEATING AND COOKING APPLIANCES

Transporting Perishable Merchandise In Trucks in Frigid Temperatures

BEFORE we abandon consideration of butane and propane applications to the field of transportation let us consider some of the ways in which they are proving their worth to common carriers other than the railroads. I speak of that vast fleet of trucks which carries a considerable portion of the nation's commodities.

We already know that in sections of this country both of these gases are being increasingly used as a motive fuel. This is a subject which will require considerable attention in ensuing chapters. Most of us, however, know little of their increasing use for refrigerating or warming perishable merchandise as it is hauled over our highways under extremes of weather conditions. From sections of our country come stories of van bodies which are refrigerated by vaporization of butane or propane. That, again, is a subject in itself.

To the frigid temperatures of the North there belongs a tale of romance and determination. One might think that the solution to heating a van body would be installing a simple gas burner with some type of thermostatic control attached thereto, but actually it is much more complicated. Truck men had already tried the expedient of piping hot exhaust gases through the interior of trucks with a pipe assembly that looked much like a steam radiator, but thermostatic control was not practical, and then such contraptions had caused serious fires. Furthermore, in order for such a device to be effective the tractive motor must be in operation all of the time. Reduction of pay load because of the weight of such assemblies was another deterrent.

I can remember when Pete Anderson, of Utilities Distributors, Inc., and his boys first started experimenting with truck heaters back in 1939, or thereabouts. Those first models were crude contraptions and not without their catastrophies. Many expensive lessons had to be learned.

For example, it wasn't the part of good judgment to carry the

By C. C. TURNER

Special Representative
Butane-Propane News

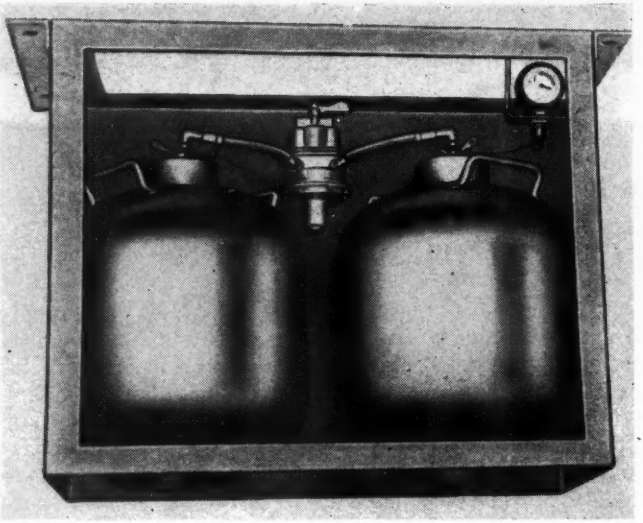


Fig. 1. Cylinder container used beneath a truck in connection with the Anderson truck heater.

gas containers within the truck body compartment, even though it seemed at that time desirable to have a self-contained package unit. Something was learned in the expensive way about the crushing force which a shifting load of several tons could produce. Safety controls of every conceivable type were tried.

The perfected product of today is in no way recognizable from its antecedents. It is sturdy to the point of practical indestructibility, yet light, compact, and about as fool-proof as any mechanical contrivance can be. The Anderson truck heater is winning laurels for itself and its designers in actual applications to the most severe of winter hauling conditions.

Both practical gas men and truckmen from as far away as Saskatchewan are besieging the manufacturers with inquiries and orders. Like the case of all dependable products under present market conditions it is difficult to the point of impossibility for the company to meet the demand.

What is this wonderful little heater that is taking the truckmen by storm? Two small 20-pound propane cylinders are installed in a rugged container beneath the truck body as shown in Fig. 1 and as again shown in Schematic Drawing 3. Also within this container, or cabinet, is a 2-cylinder, automatic regulator assembly which automatically shifts the gas system onto the reserve cylinder when the service cylinder is exhausted.

The indicating gage is readily visible, as shown in both of the illustrations. One is reminded of an automatic domestic self-service

Making fine Water Heaters

is the exclusive business of

UNITED STATES HEATER CO.

NOT JUST A DEPARTMENT--NOT JUST A DIVISION--NOT JUST A BY-PRODUCT

United States Heater Company is a completely integrated manufacturing plant devoted exclusively to the development and manufacture of water heaters. All component parts are completely manufactured under one management and are designed specifically for use on United States Water Heaters. This undivided responsibility stands behind and guarantees the quality of every United States Water Heater.

Hot Water Heating satisfaction begins when the United States Heater is installed. This satisfaction reflects most favorably on the dealer who makes the installation . . . and builds for him a continuous profitable business that goes far beyond the original water heater sale.

UNITED STATES HEATER CO.

133 EAST PALMER AVENUE • COMPTON, CALIFORNIA

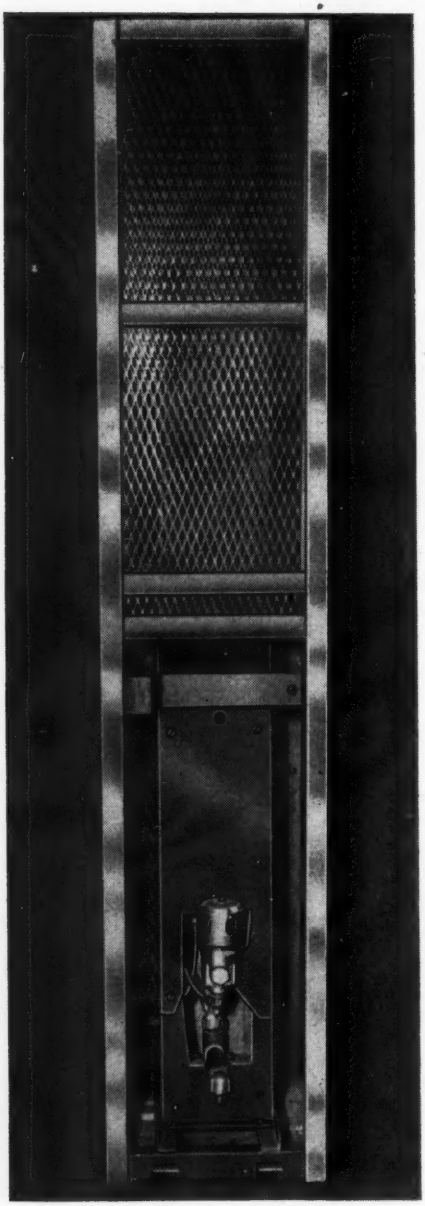


Fig. 2. The Anderson truck heater with slide panel raised.

or cash-and-carry system except that the construction is more rugged to withstand the severe conditions to which truck usage subjects the assembly. In these two 20-pound capacity cylinders there is stored sufficient fuel to operate the truck heater at maximum capacity for 45 hours. This fuel supply has been found amply sufficient to provide for all of the heating requirements of modern high speed motor truck transportation, and cylinders can be changed without shutting off the heater. Total weight of the carrier is but 58 pounds when it is empty and 146 pounds when it contains full cylinders.

The heater, itself, is shown in Fig. 2 with the slide panel raised so as to give access to the working parts such as the thermostat and safety pilot. Schematic Drawing 3 gives a better idea of the sturdy construction of the heater, this being of angle iron, heavy sheet steel and steel grill caging.

Occupies Waste Space

The heater is fastened to the floor of the interior of the truck body at a suitable place. Its net weight is but 103 pounds and it requires but approximately 9 cubic feet of what would otherwise be load space. The thermostat with which it is equipped has a range of from 55 to 80 degrees Fahrenheit with a differential of but 4 degrees. Maximum burner input is 19,250 per hour. On the basis of approximately 240 Btu's per hour per square foot of steam radiation its heating capacity is

Again...in 1947

TAPPAN'S deal is TOPS

This is it...

- ...a quality product of outstanding sales appeal — made by a company which has spent 66 years *making nothing but ranges.*
- ...continuous national advertising, reaching *millions* of your prospects.
- ...special seasonal promotions.
- ...mats and billboard posters.
- ...window and floor displays.
- ...sales training, sales demonstration outfits.
- ...the "Sales Maker", the *best* selling manual in the field.

Yes, Tappan's deal has everything to help you sell one of the world's finest lines of gas ranges... with the many famous Tappan "firsts" and the equally famous Tappan "exclusives".

THE TAPPAN STOVE COMPANY • Mansfield, Ohio

For 66 years, makers of fine ranges

that of 80 square feet of steam radiation!

Advantages of a heater of this type to the motor truck operators may be summarized as follows:

1. Instantaneous heat available.
2. Simplicity. No dampers to adjust.
3. No danger of overheating.
4. No odor.
5. No soot.
6. No dirt.
7. No fumes.
8. Easy lighting.
9. Easy starting.
10. 100% safety cut-off equipment.
11. Easily accessible.
12. Can be easily removed when not needed.

Of equal importance, however, to the truck man is the assured safety of perishable loads in freezing temperatures. The motor carrier is responsible for the safety of his load under all weather conditions, and the value of a truck load of lettuce, tomatoes, apples, grapefruit, or other such merchandise, may run into several hundreds of dollars.

As an example of practicability I cite the case of Cole's Express which runs a fast trucking service from Portland and points south right up into Presque Isle and the northern tip of Maine. One morning one of their trucks left Portland at 3 A.M. heavily loaded with fruit and vegetables. It arrived at Presque Isle that night at 9:00 P.M. in a temperature of 30 below zero, only to find that the Cole warehouse had burned down during the day, all stores were closed, and there was no place to store the load where it would be protected from freezing temperatures.

All night long the Anderson truck heater continued to protect that valuable load from sub-zero temperatures. In the morning it was unloaded at the stores of those to whom it was consigned, and the only complaint was that some of the lettuce was slightly wilted from the thermostat having been set at slightly too high temperature for the best preservation of lettuce!

Let's do a little hasty figuring and make an assumption of the load being worth in the vicinity of $1000. If the heater had operated at maximum capacity for 30 hours the cost of fuel could not have been over $2.33. This is but 233/100ths of 1% of the value of the load!

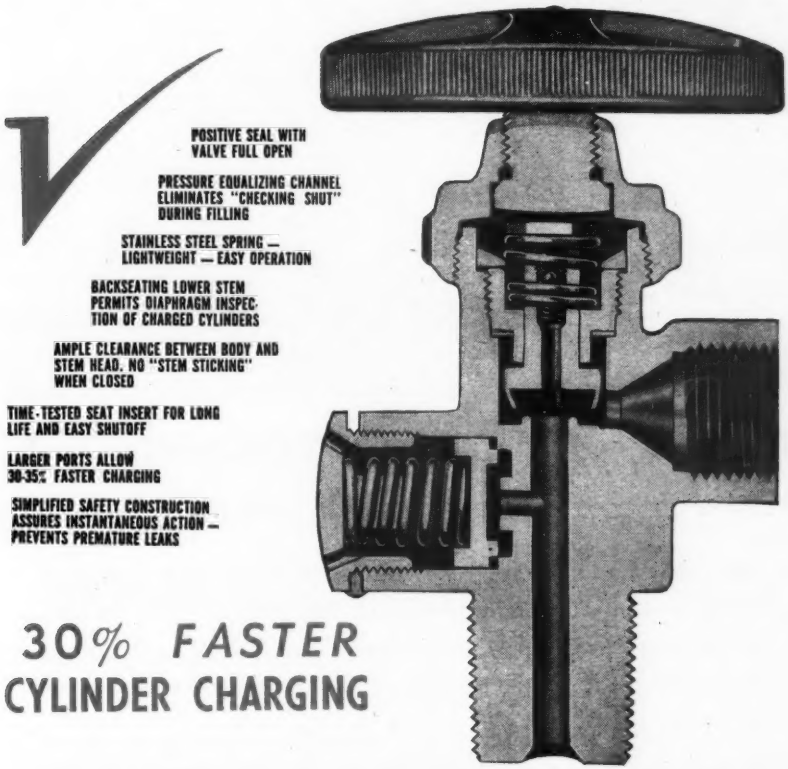
What trucker in frigid climes could afford to take a chance with such a valuable load as that when protective insurance was available at such an infinitesimal cost?

The Load Potential

What are the load-building possibilities of the gas-fired truck heater for this business of ours? This is a matter on which even its manufacturers will not hazard a guess. A study of the degree-day map of the United States shows a low temperature line running farther south than is generally known. North of this line are many thousands of trucks which either haul produce exclusively or as common carriers are called upon frequently to do it.

Let us assume that average annual consumption per heater-equipped truck might be a conservative 400 pounds of propane. Multiply this by 1,000 trucks and

SCHOENBERGER VALVES HAVE THESE IMPORTANT FEATURES


POSITIVE SEAL WITH VALVE FULL OPEN
PRESSURE EQUALIZING CHANNEL ELIMINATES "CHECKING SHUT" DURING FILLING
STAINLESS STEEL SPRING — LIGHTWEIGHT — EASY OPERATION
BACKSEATING LOWER STEM PERMITS DIAPHRAGM INSPECTION OF CHARGED CYLINDERS
AMPLE CLEARANCE BETWEEN BODY AND STEM HEAD. NO "STEM STICKING" WHEN CLOSED
TIME-TESTED SEAT INSERT FOR LONG LIFE AND EASY SHUTOFF
LARGER PORTS ALLOW 30-35% FASTER CHARGING
SIMPLIFIED SAFETY CONSTRUCTION ASSURES INSTANTANEOUS ACTION — PREVENTS PREMATURE LEAKS

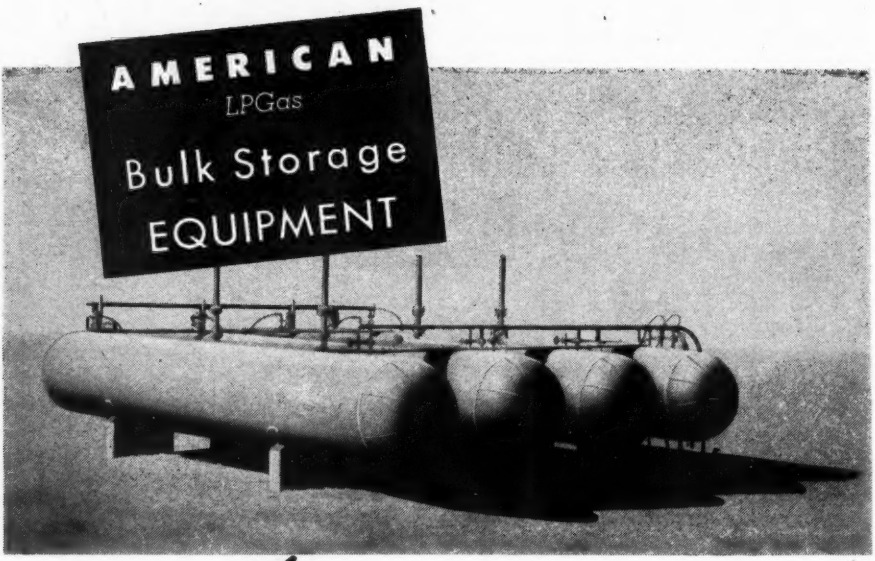
30% *FASTER* CYLINDER CHARGING

Schoenberger valves stand up even under the most strenuous usage—always giving fast, dependable service. Embodying the latest operating improvements, the Schoenberger valve eliminates the difficulties experienced with conventional L-P cylinder valves.

Approved by Underwriters' Laboratories Inc.

THE W. J. SCHOENBERGER CO.

8810 HARVARD AVENUE • CLEVELAND 5, OHIO



meets the requirements of

DISTRIBUTION, PRODUCTION & STAND-BY PLANTS

There may be long periods of time when not a single gallon of LPGas is removed from an American Bulk Storage Plant. Actually they may operate only a few days a year, yet these American Plants are ready for immediate efficient, economical service at all times.

To meet these rugged requirements, or the requirements of constant use, American Bulk Storage Tanks include all known safety features. They are made in accordance with API-ASME or ASME Codes and comply with NBFU requirements.

Regardless of cost, you cannot buy better bulk plant facilities.

AMERICAN PIPE & STEEL CORPORATION

Engineers, Designers, Fabricators

ALHAMBRA CALIFORNIA

Cable Address: AMPSTEEL

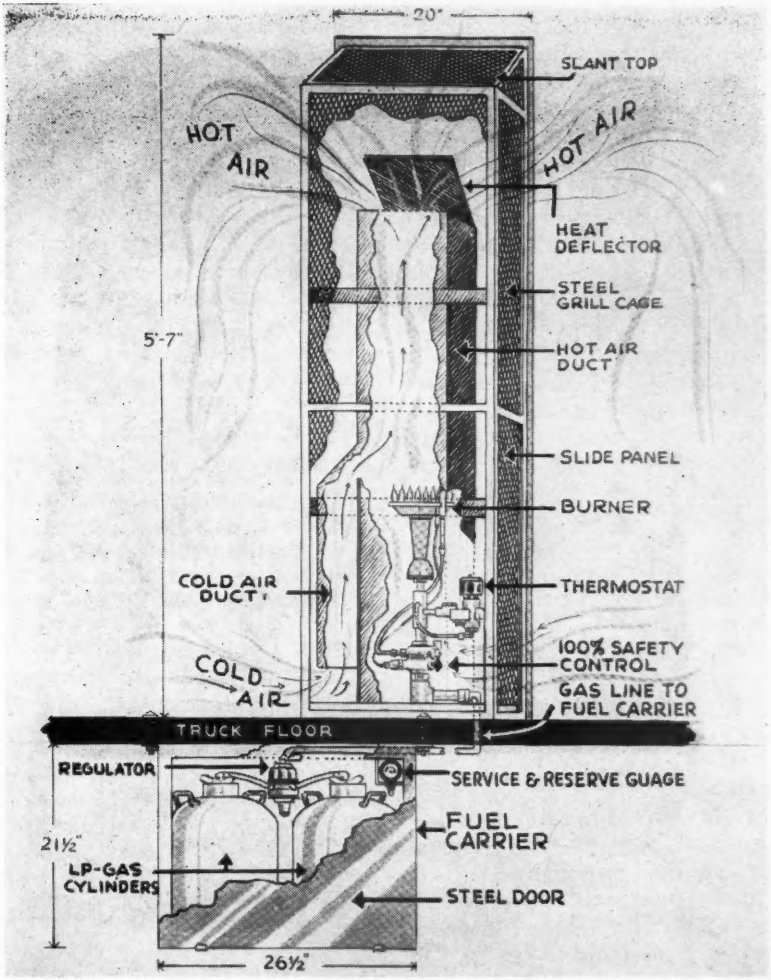


Fig. 3. Schematic drawing of the Anderson truck heater.

you have 400,000 pounds, or multiply it by 10,000 trucks and you have 4,000,000 pounds of propane per year.

When you consider the hundreds of such trucks that leave terminal shipping points each day, then add to them the thousands of smaller trucks which depend upon these feeder trucks in turn, one can arrive at unbelievable poundages which this business of ours may

be called upon in the near future to supply for truck heating alone. There is one certainty—it will be a considerable gas-load. Nor are the produce-hauling trucks the only ones which can use heating to advantage. Imagine large bakery vans which deliver to your door rich, tasty bread with the oven heat still in it, or delicious doughnuts as they come hot from the deep fat fryer! One can think of many such products which can to advantage be delivered from carriers warmed by gas-fired truck heaters, and competitive conditions will drive bakers and other processors of cooked foods to give more attention to the temperatures at which their products are delivered to the buying public.

The appeal of the corner bakery is not so much in superiority of its product as it is that you procure them still warm and fresh from the bake ovens.

The Field is Wide

Then again, the Anderson truck heater is not confined to truck heating alone. The warehouse which requires temporary heat, the contractor who pours concrete in freezing temperatures or attempts plastering in them, the construction foreman in his shanty, the plumber who has heretofore suffered at his work in heatless buildings: all of these, and more, require a sturdy heating unit which is more or less portable, thermostatically controlled, requires no expensive chimney connection and possesses the stamina to stand a lot of banging. The field for a heater of this type is truly amazing.

Pete Anderson once repeated to me the old phrase, "Many little brooks make a river." It is fundamentally true of this business of ours. Whether it is a tiny gas light, an air conditioning plant, a heat treating furnace, or even a truck heater, all contribute their part to the mighty stream of the LP-Gases daily increasing in volume and their myriad services to mankind!

28 Flat Cars Needed to Haul Propane Tanks for Storage

Twenty-eight railroad flat cars were required to bring the 11 giant propane storage tanks to the new peak load propane plant which The Manufacturers Light and Heat Co. is erecting at Lewis Run near Bradford, Pa.

These steel storage tanks are 9 ft. by 70 ft. When loaded with approximately 30,000 gallons of propane per tank, they will weigh about 100 tons each.

The 70 ft. length of the tanks made necessary the placing of each tank on the center of a flat car. The ends of the tank extended across the couplings and onto two adjacent flat cars. Despite their size, no difficulty was experienced in bringing the large tanks to Lewis Run, where the final shipment of tanks was received in mid-October.

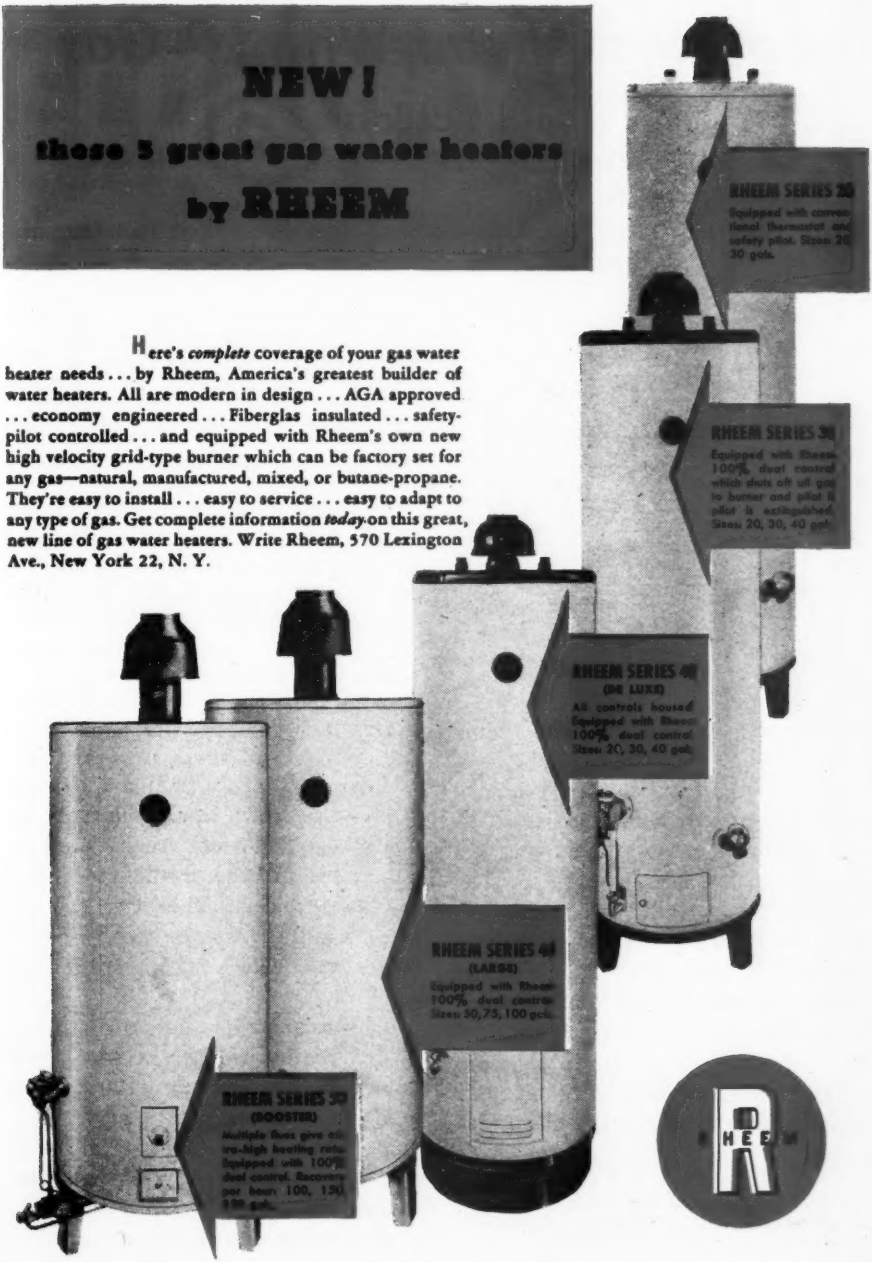
According to D. A. Wilkinson, local manager for the gas company in Bradford, the peak load plant will be ready to be placed in operation after the middle of November.

The new peak load plant will have the capacity to produce an output of propane-air gas equivalent to 5,000,000 cu. ft. of natural gas every 24 hours.

NEW!

these 5 great gas water heaters by RHEEM

Here's *complete* coverage of your gas water heater needs . . . by Rheem, America's greatest builder of water heaters. All are modern in design . . . AGA approved . . . economy engineered . . . Fiberglas insulated . . . safety-pilot controlled . . . and equipped with Rheem's own new high velocity grid-type burner which can be factory set for any gas—natural, manufactured, mixed, or butane-propane. They're easy to install . . . easy to service . . . easy to adapt to any type of gas. Get complete information *today* on this great, new line of gas water heaters. Write Rheem, 570 Lexington Ave., New York 22, N. Y.


RHEEM SERIES 20
Equipped with conventional thermostat and safety pilot. Sizes 20, 30 gals.
RHEEM SERIES 30
Equipped with Rheem 100% dual control which shuts off all gas to burner and pilot if pilot is extinguished. Sizes 20, 30, 40 gals.
RHEEM SERIES 40
(DE LUXE)
All controls housed. Equipped with Rheem 100% dual control. Sizes 20, 30, 40 gals.
RHEEM SERIES 40
(LARGE)
Equipped with Rheem 100% dual control. Sizes 50, 75, 100 gals.
RHEEM SERIES 50
(BOOSTER)
Multiple flues give extra-high heating rate. Equipped with 100% dual control. Recovery per hour: 100, 150, 200 gals.
RHEEM

Looking Ahead With LP-Gas

By S. B. CROOKS*

Superintendent, Sales and Traffic, Cities Service Oil Co., Bartlesville, Okla.

WITH such a title as I have chosen one should use the radio station announcement for "Commentators," namely; "The opinions expressed herewith are not necessarily those of this association, the company, etc." One cannot actually see the future, nor anticipate its trends, except by a study of the past and present so I will endeavor to give some brief statements of such facts upon which you can build your own idea of the future of this expanding industry and I am confident you will not feel I have been over optimistic.

S. B. CROOKS

The LP-Gas industry, you might say, had started the "commercialization" of an idea to finish or polish, transport and sell liquefied petroleum gas about 20 years ago. One of the early plants in that era to start the sale of butane was our plant south of this city selling for both domestic and industrial purposes. The first sources were natural gasoline plants which furnished most of the LP-Gas until the war situation brought oil refineries into the picture as producers of LP-Gas. Also, the cycling plants have added their quota as a third source.

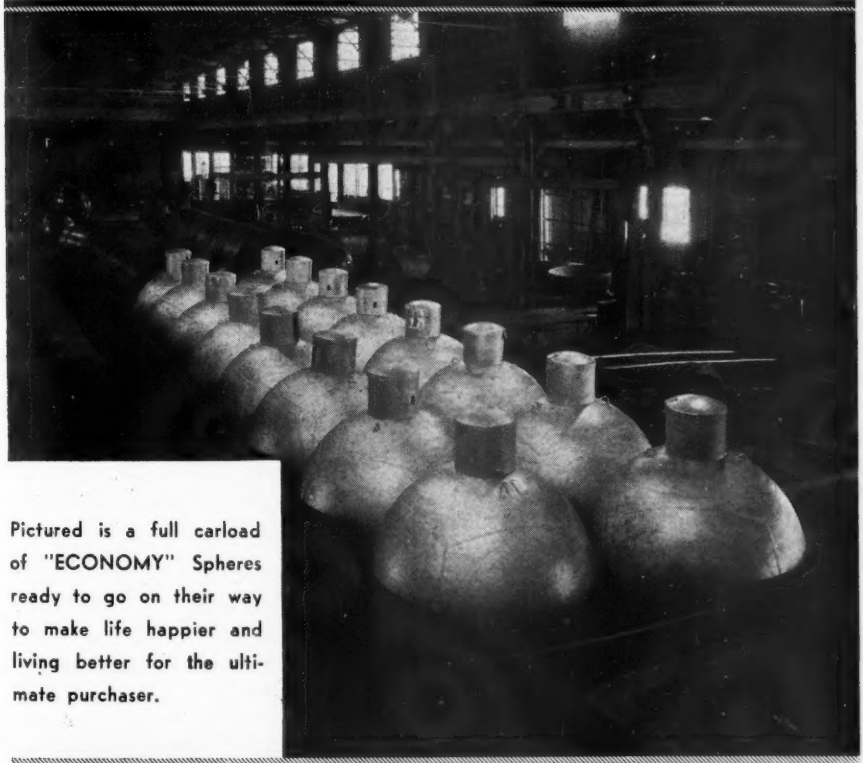
Gas Load Became Important

At first LP-Gas was considered a by-product and there appeared to be large supplies compared with the markets resulting from the early efforts to sell this product. This resulted in low prices and keen competition so that many dealers depended more upon appliance sales than earnings from the sale of the fuel itself, for their profits. This trend was sharply changed by the war when new appliances disappeared and dealers realized they must live on the profit from the sale of LP-Gas. This resulted in firmer and in some cases higher prices by dealers which made for a healthy market.

The extremely sudden increase in demand caused by the war when new demands such as 100 octane aviation gasoline, synthetic rubber and many new industrial war plants, changed LP-Gas at the source completely from a by-product to a product in its own right.

* A paper read at the Kansas Liquefied Petroleum Gas Association Convention, Wichita, Oct. 21.

ECONOMY BY THE CARLOAD



Pictured is a full carload of "ECONOMY" Spheres ready to go on their way to make life happier and living better for the ultimate purchaser.

TANKS BY BANKS

DALLAS TANK *Company, Inc.*

201-5 W. COMMERCE ST., P.O. BOX 5387 ★ DALLAS, TEXAS

Butane was essential in the production of 100 octane aviation gasoline, in the production of butadiene for synthetic rubber and also for the manufacture of chemicals by synthetic processes. Propane, aside from fuel uses, was needed for the synthetic production of styrene and in some chemical production.

LP-Gas was also required by the natural gas industry as they reached out with long pipelines to large cities for greater markets. It was stored near the large cities as standby supply in case of line breaks, also to supply the short peak load requirements when demands exceed the pipeline capacity for brief periods.

All of the above developments were suddenly thrust upon the producing branch of the industry and, while it may have staggerd a little under some of the peak winter period demands, it met the situation with a fine showing of service to all.

Butane Used in Motor Fuel

The present situation is complicated by many factors, some not readily noticeable due to the interlocking relations of all parts of our modern industry. While the demand for 100 octane aviation gasoline as such has decreased somewhat, refiners continue to operate their facilities, such as alkylation, requiring butane in order to blend and maintain the good octane rating of modern motor fuels in the face of a shortage of lead for the production of ethyl fluid. During the colder months some butane can be blended direct into motor fuel without vapor lock difficulties and with butane's octane rating of approximately 100—this helps greatly in this factor.

During the war the synthetic rubber required for tires, etc., was produced from butane and alcohol. In order to assist the production of 100 octane aviation gasoline from butane during the war, all possible volumes of synthetic rubber were manufactured from alcohol. The alcohol in turn had to be produced from black strap molasses and grains. This made the rubber produced from alcohol much more expensive than that produced from butane.

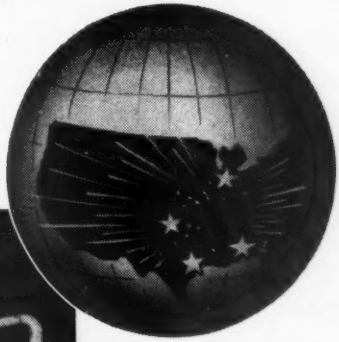
Synthetic Rubber Needs Continue

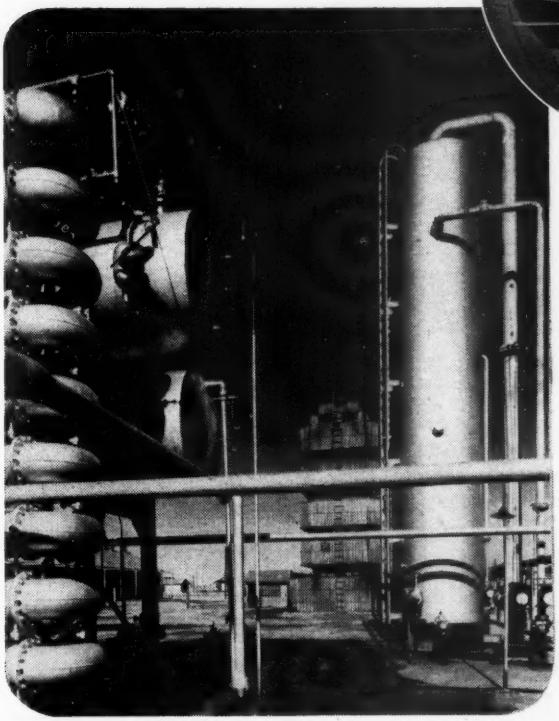
Following the war the cry was raised for grain to feed Europe and it was not possible to obtain sufficient black strap molasses to meet the requirements of the alcohol industry. Hence, the heavy load of maintaining synthetic rubber production to re-tire the nation's cars and trucks was thrown back on butane or LP-Gas. This alcohol situation will be reflected in a scarce situation for antifreeze of this type this coming winter. This is a long explanation of apparently outside products but it is felt it would explain some of the industry problems now prevailing.

Figures are dry and can be made deceptive but here are just a few to show the tremendous growth of th LP-Gas demand. The total of all gases exclusive of material used for synthetic rubber and in the area east of the Pacific Coast was

a World of Markets

RIGHT NOW





FOR LIQUEFIED PETROLEUM GAS

Science, necessity and ingenuity have made boundless the once limited uses of Liquefied Petroleum Gas.

Today industrial, commercial, institutional, municipal, agricultural, rural home and suburban home uses present an ever-increasing and expanding market for propane and butane.

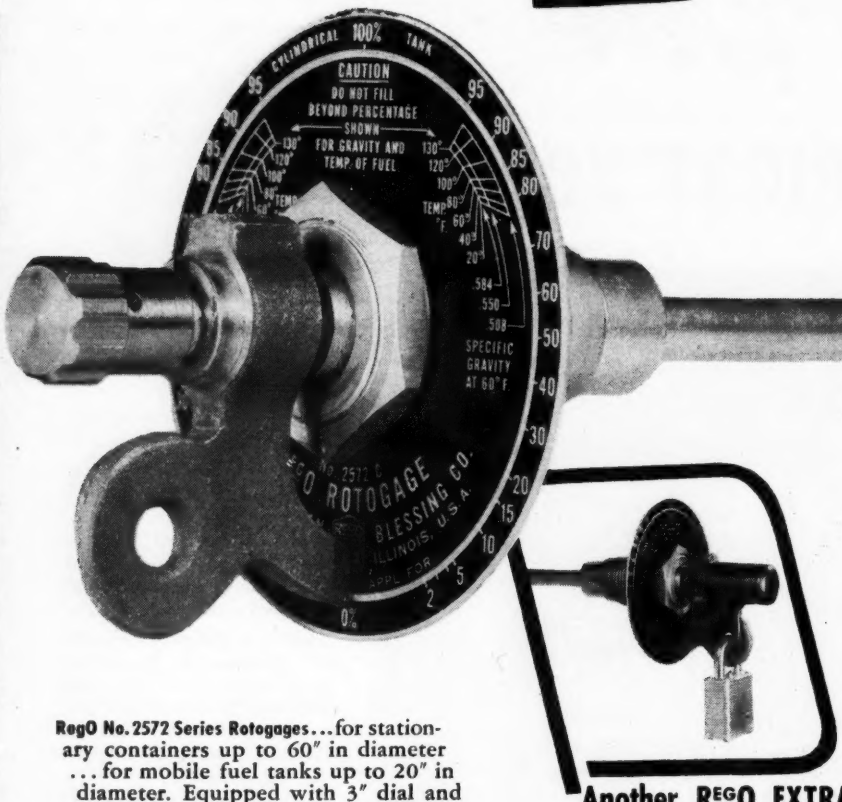
Yes, there is a world of markets in these United States and a world of opportunity for alert LP-Gas distributors in this rapidly growing industry.

WARREN PETROLEUM CORPORATION

TULSA, OKLAHOMA

Detroit Mobile Houston

EXTRA ACCURACY EXT



RegO No. 2572 Series Rotogages...for stationary containers up to 60″ in diameter ...for mobile fuel tanks up to 20″ in diameter. Equipped with 3″ dial and ¾″ male taper pipe thread connection.

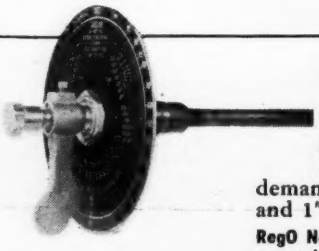
RegO No. 2572C Rotogage ... for mounting on cylindrical container.

RegO No. 2572S Rotogage ... for mounting on sphere.

Another REGO EXTRA

Protective cap can be locked in place to prevent tampering. This feature is ideal for domestic installations. It also saves the cost of installing locked-type hood.

REGO LP GAS EQUIPMENT



REGO No. 2582 Series Rotogages for Bulk Storage and Transport Containers

Essentially the same as its smaller counterpart, but larger in size and more rugged to meet the demands of large installations. Equipped with 7″ dial and 1″ male taper pipe thread connection.

RegO No. 2582C Rotogage ... for mounting on cylindrical container.

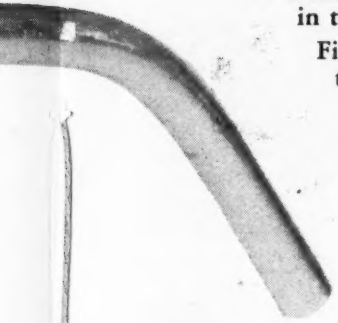
RegO No. 2582S Rotogage ... for mounting on sphere.

PIONEER AND LEADER IN THE DESIGN AND MANUFACTURE OF PR

EXTRA CONVENIENCE EXTRA SAFETY!

New REGO ROTOGAGE

for Cylindrical or Spherical Containers . . .
Stationary or Mobile Installations . . .



SIMPLE, POSITIVE OPERATION . . . Contents of a container may be checked easily by setting the indicator at 100% on dial, opening bleeder valve and turning indicator handle until liquid is discharged from bleeder valve—indicator then points to percentage of fuel in tank.

Filling container to correct percentage is equally easy—indicator is set to desired percentage, bleeder valve is opened at intervals and fuel is pumped into container until liquid is emitted from bleeder valve.

LEAKPROOF CONSTRUCTION . . . A leakproof seal in the Rotogage is achieved by a special design by which the seat is spring-held against a resilient seat washer. This design eliminates repacking and insures prolonged leakproof operation, as take-up of wear is automatic.

PIN CLEAN-OUT...Clogging of restrictor in the bleeder valve is eliminated by a clean-out pin, a feature which has proved its worth in thousands of RegO Slip Tube Gauges.

FREE ACTION . . . The RegO Rotogage has a smooth and uniform action due to the spring-loaded seal combined with accurate machining and fitting of moving parts.

DIAL CALIBRATION...Dials have accurate dual calibration so that reading may be taken easily and quickly from either right-hand or left-hand side. Each calibration is designed to show the maximum permitted filling level for LP Gas fuels at various temperatures.

REGO
LP GAS EQUIPMENT

The BASTIAN-BLESSING Company

4201 W. Peterson Avenue Chicago 30, Illinois

OF PRECISION EQUIPMENT FOR USING AND CONTROLLING LP GASES

EFFICIENT **climax** SAFE!

CONTINENTAL CONTROL HEAD ASSEMBLY

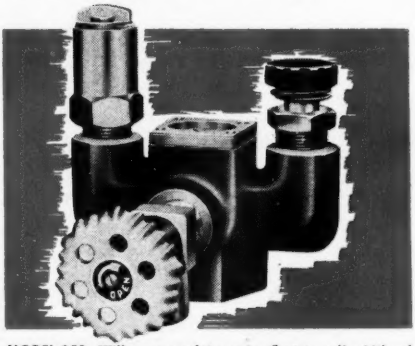
applicable to above or below ground systems

Proven and accepted by L.P.G. Industry. Built to comply with the published requirements of the National Fire Underwriters' Board.

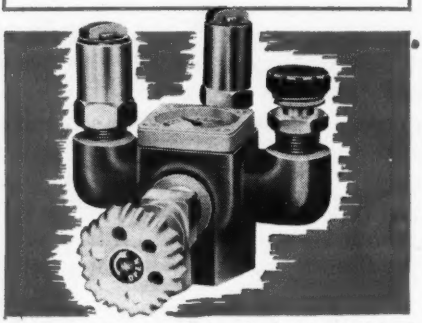
FOR TWO RISER INSTALLATIONS

Complete head, factory tested and assembled, includes following major parts:

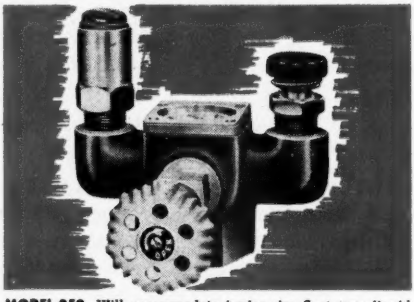
- Vapor Return Valve with Slug Check
- Line Shut-off Valve with Slug Check
- Magnetic Float Gauge or Slip Tube Gauge
- Pressure Gauge—optional (special tapping necessary)
- Safety Relief Valve
- Pigtail
- Expansion Coil
- Pressure Reducing Regulator
- Filler Valve for Second Riser (separate)



MODEL 250. Will accommodate senior float type liquid level gauge. 3¾" openings accommodates vapor return valve, relief valve, line valve, adaptable to 1½" tank riser.



MODEL 251. Will accommodate senior float type liquid level gauge. 4¾" openings accommodates two relief valves, line valve, vapor return, adaptable to 1½" tank riser.



MODEL 252. Will accommodate junior size float type liquid level gauge. 3¾" openings accommodates vapor return valve, relief valve, line valve, adaptable to 1½" tank riser.

CLIMAX Control Heads are precision built for extra strength and safety. All machined parts are cleanly cut. Bodies are bronze castings, close grained, free of burrs. All models come with or without fittings. Available in other combinations of valves than illustrated, so as to be adaptable to all service requirements. Write for literature and detailed specifications.

CLIMAX INDUSTRIES INC.

CLIMAX INDUSTRIES, INC.
L. P. G. DIVISION
15 North Cincinnati Avenue
TULSA, OKLAHOMA

TABLE 1

	January to July, Inclusive 1945	1946
LP-Gas for fuel	343,193,000	440,061,000
LP-Gas for chemicals	80,493,000	121,470,000
From natural gasoline and cycling plant	423,686,000	561,531,000
LP-Gas for fuel and chemicals (from refineries)	240,912,000	380,184,000
Total	664,598,000	941,715,000
Increase		277,117,000

538,632,000 gallons in 1943, and 737,034,000 gallons in 1944, and if the synthetic rubber components were added to 1944 the total reached 893,243,000 gallons. The real value of these figures is to show the extremely sharp increase in the volume of LP-Gas over this period.

To bring it down to the present, the figures in Table I are reported.

These figures show the demand is still increasing even above that of the war by large volumes. This brings us to still another very present problem in meeting the peak demands of the next several months, namely; transportation.

Suitable tank cars are not available in sufficient volume to handle the present demand for LP-Gas. Due to the shortage of steel, 2000 new tank cars which have been on order for several months probably will not be delivered for several more months and orders placed now are being quoted second and third quarter of 1947 delivery. Where are the cars to come from to handle the increase shown above? It looks like a difficult winter for the traffic men.

The government built almost 1000 of this type of car during the war for use in transporting anhydrous ammonia (for explosives) and LP-Gas for 100 octane aviation gasoline and synthetic rubber. After the war the ammonia plants were shut down and many of these cars were transferred to LP-Gas service and leased to LP-Gas manufacturers.

Now the Army, to ease the controls in Europe and make the people there feed themselves, is preparing to ship fertilizer to Europe. To produce this fertilizer the government is starting operation of the ammonia plants again and will recall the ammonia cars from LP-Gas service to move the ammonia from these plants to plants where the fertilizer will be manufactured. That will remove that many cars from the LP-Gas service, which is already short of this type car for today's demand.

Now to look ahead in this in-

dustry. As explained earlier, LP-Gas was a by-product when this industry started, but now it is a product in its own right, at the point of manufacture. The product is more highly refined than in the by-product days, requiring more investment and operating expenses. Additional quantities are available at natural gasoline plants, cycling plants and refineries, but large investments must be made to recover and finish this material. This will require availability of steel, delicate control instruments, transportation, etc.

Cycling Plants Enter Picture

Natural gasoline and cycling plants are at present the principal source of LP-Gas. The number and capacity of the cycling plants will be a function of the discovery of producing fields requiring that type of operation. The natural gasoline plants recover natural gasoline from casinghead gas from oil fields and from natural gas being transported in large gas pipelines to the large cities for sale; also, from either casinghead or natural gas being sold to carbon black plants, chemical plants, etc.

More large gas pipelines are being planned for construction as soon as materials are available which indicates more natural gasoline plants will be built and the newer plants will probably have more equipment and consequently carry much greater investment costs, so that they may recover greater percentages of the total available LP-Gas. This situation would therefore point to increased sources of LP-Gas, while by increased investments, as prices of products justify, more production can be obtained and marketed from some of the present plants.

It is anticipated domestic crude oil production will be maintained at present levels and likewise crude runs at refineries. In addition, there appears to be a program of new equipment at refineries, such as "cat" crackers, etc., which will tend to increase the volatility of the products produced at refineries. This adds up to additional LP-Gas supplies at refineries or at least less purchase of LP-Gas by refineries from natural gasoline plants, thus releasing that production for the increasing domestic market. Refiners also can increase production, at a price, by greater investment to recover potential supplies which present equipment cannot recover. This additional production will cost more per gallon to produce than the original by-product or even the present volumes.

Higher Prices Inevitable

This will result in a search for the best paying markets and several mentioned above will pay higher prices than the domestic consumer is now paying. To the refiner this LP-Gas can be worth the tank car price of motor fuel. The chemical industry can likewise pay well for such a perfect raw material for their synthetic operations. These conditions are pointed out to show that while supplies can be greatly increased, the larger production must carry a higher price.

Of course, in addition to the

RANSOME SOLDERING TORCH

for

ELECTRICIANS
PLUMBERS
MECHANICS
METAL WORKERS

Here is a 14" torch which operates on either butane or protane and requires no additional compressed air. Weighs only three-fourths of a pound, takes only a moment to change heads to get the type of flame desired. It is particularly popular in electrical work, radiator repair, copper tubing installation, all types of soldering, conduit work and wiping. Write for a copy of the Ransome Torch Catalog.

RANSOME COMPANY

Designing and Constructing Engineers

4030 HOLLIS STREET • EMERYVILLE • CALIFORNIA

Ransome

plant investment, additional high pressure tank cars must be purchased. In tank cars it requires an investment of about $5,000 to transport one tank car load of LP-Gas per month. This is a sizeable investment in itself.

As LP-Gas is a product of continuous production it must move from the manufacturer's plant currently except for such storage as he can afford at the plant. The chemical market and several other industrial demands have an even load throughout the year which makes them a preferred outlet from that standpoint.

Building additional summer load will assist up to a certain point in taking the manufacturer's output, but somewhere in the path from the plant to the consumer, sufficient material must be stored to cushion the winter peak demand of the domestic consumer. The best place for this, both as to location, service and spreading of investment is at the customer's location.

This has many advantages. He can easily afford the small additional cost; it will reduce the number of trips per year to such customer, thus reducing the unit cost of delivery, and filling trips can be planned for at least reasonable weather and not emergency. Some storage should also be carried by the dealer to help this situation and overcome railroad delays during the winter months.

In addition to the seasonal type of demand by the dealers' domestic customers, the various standby installations also peak in the winter, and the refiner will retain his butanes in the winter to blend with his motor fuel. The refiner, while he used some propane in his motor fuel during the war as an extreme emergency, will not do this now. Hence, we return to the old problem of butanes versus propane.

We still believe all equipment should be designed for propane, as in that event the dealer and customer can readily switch according to the product available. It still seems that the domestic consumer has a better outlook for propane as his eventual fuel.

These are problems of deep mutual interest to all parties (manufacturer, dealer and customer) as the real vital interest is service and quality of product. Service is the more extensive problem as the manufacturer carefully watches the quality of the product.

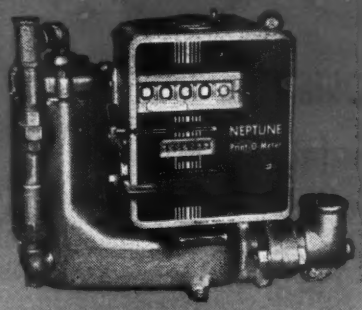
Therefore, looking ahead, there appear to be ample supplies of LP-Gas so far as volume is concerned, but at higher prices as it becomes necessary to recover greater percentages of these products from the gases by larger investments in plant facilities and higher operating costs.

Florida Firm Moves Into New Display Store

The Natural Gas Co. of Florida, Ltd., has moved into offices and display rooms at 117 So. Magnolia St., Ocala, Fla. Charles H. Rogers, Jr., is the proprietor of the business.

The appliance store, brilliantly lighted and modernly designed, drew many visitors at the opening of the headquarters, according to Leslie Ward, who will have charge of the appliance end of the business.

SILENT PARTNER

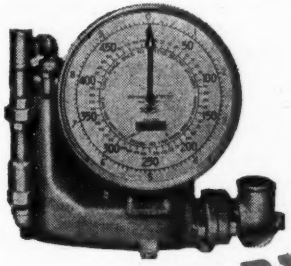


WITH A HEAD FOR BUSINESS

Here is a real profit-protecting partner for you. It is a faithful worker that quietly and dependably registers all LP-Gas gallonage handled, whether withdrawn from bulk storage or delivered to customers from dispensing units or tank trucks. It is the Neptune Red Seal LP-Gas Meter—the meter whose record for sustained accuracy is unsurpassed.

By accounting for every gallon of LP-Gas, this silent partner enables you to speed up truck loading and delivery operations, to eliminate overmeasure, to find leaks faster, to reduce handling effort. And when your Neptune LP-Gas Meters are equipped with the Print-O-Meter Register, the receipt tickets give customers indisputable printed proof of full-measure deliveries.

Get all the facts about Neptune Red Seal LP-Gas Meters and how they can figure in boosting your profits. Ask for Bulletin 779. Write today.



Neptune Red Seal Meters accurately measure LP-Gas. Long-life measuring chamber has only *one* moving part—the piston. 1¼-Inch "Compact Type" 1D Meter, shown at left, is equipped with easy-to-read Round Dial Register. Other register types available.

NEPTUNE RED SEAL METERS

NEPTUNE METER COMPANY
50 West 50th Street • New York 20, N. Y.

Branches: Atlanta, Boston, Chicago, Dallas, Denver, Kansas City, Mo., Los Angeles, Louisville, Philadelphia, Portland, Ore., San Francisco and Long Branch, Ontario.

A 163

Oklahoma Starts Safety Campaign

By O. D. HALL

The 15 divisions of Oklahoma which will feature dealers safety education under auspices of Oklahoma Liquefied Petroleum Gas Association.

THE safety and educational campaign of the Oklahoma Liquefied Petroleum Gas Association, as outlined during the recent state convention of the organization, was under full swing in December.

The LPG Safety and Educational Council, with J. O. Green, Seminole, chairman, has completed local organizations in most of the 15 divisions of the association. Serving with Mr. Green on the council are: B. C. Truett, Carnegie; Glenn Moore, Geary; John Knox Smith, Bartlesville, and Bill Elkins, Oklahoma City.

Each of the divisions includes from three to seven counties, thus giving dealers and employes opportunities to hold frequent meetings and round table discussions close at home. Division organizations partially or wholly completed up to the end of November include:

Division 1—J. T. Cunningham, Hollis, chairman; Joe W. Myers, Frederick, vice chairman, and Sherman Spradling, Gould, secretary-treasurer.

Division 2 — Theo. Freuchting, Weatherford, chairman; Haskell Fife, Carnegie, vice chairman; L. M. Mitchell, Clinton, acting secretary-treasurer.

Division 3 — Ernest J. Frantz, Woodward, chairman; Earl England, Seiling, vice chairman.

Division 4—Harold W. Ford, Boise City, chairman; Everett Dryden, Guymon, vice chairman; Arthur Arnett, Beaver, secretary-treasurer.

Division 5—Frank Birdsall, Enid, chairman; Charles Monroe, Perry, vice chairman; J. V. Stewart, Medford, secretary-treasurer.

Division 6—Jay Calhoun, Kingfisher, chairman; Ed Mehew, Okeene, vice chairman; Richard Watson, Hennessey, secretary-treasurer.

Division 7—To be organized.

Division 8—Grover Pierce, Duncan, temporary chairman; organization to be completed later.

Division 9—F. D. Chanel, Tishimongo, chairman; J. E. Jones, vice chairman, Garvin county; Shirley Young, Ada, vice chairman, Pontotoc county; John Bogle, Jr., Ardmore, vice chairman, Carter county; W. T. Batson, Marietta, vice chairman, Love county; Clyde Harrel, Davis, vice chairman, Murray county; Charles Vanderpool, Madill, secretary-treasurer.

Division 10—To be organized.

Division 11—Wiley Burke, Wilbur-

BEHIND A GOOD GAUGE

A GOOD COMPANY

C & S MANUFACTURING & SUPPLY CO.

DEPENDABLE LIQUID LEVEL GAUGES AND L-P GAS EQUIPMENT ACCESSORIES

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ton, chairman; S. R. Hughes, McAlester, vice chairman, Pittsburg county; Hercel Dobyns Stigler, vice chairman, Haskell county; John T. Edmonds, Talihina, vice chairman, Leflore county; Jim Cook, Wilburton, secretary-treasurer.

Division 12—J. O. Green, Seminole, chairman; Ralph Branson, Tecumseh, vice chairman, Pottowatomie county; J. J. Sexton, Holdenville, vice chairman, Hughes county; John McBride, Okemah, vice chairman, Okfuskee county; R. C. Morrow, Okmulgee, secretary-treasurer.

Division 13—W. W. Wentworth, Cushing, chairman; Donald A. Haynes, Pawnee, vice chairman; Donald S. Breed, Sapulpa; E. L. Gilmore, Tulsa; Nelson Chandler; Earl Wall, Ralston, county vice chairmen and R. L. Mays, Cushing, secretary-treasurer.

Division 14—Claude Berry, Tahlequah, chairman; Paul Kirchner, vice chairman, Wagoner county; Tom Berry, vice chairman, Adair county; Roy Cody, vice chairman, Sequoyah county; Howard Kirchner, Muskagee, secretary-treasurer.

Division 15—W. T. Jones, Afton, chairman; J. L. Lewis, vice chairman, Mayes county; J. M. Dixon, vice chairman, Delaware county; Charles Reed, vice chairman, Nowata county; O. E. Whitenack, vice chairman, Rogers county; W. A. Holland, Vinita, secretary-treasurer.

Demonstrations in handling inflammable fuels were scheduled for presentation during December by G. M. Kintz, supervising engineer, U. S. Bureau of Mines, in seven Oklahoma cities.

Fred Yates, executive secretary of the Oklahoma LP-Gas Association, said that this is the the greatest demonstration on proper handling of inflammable fuels ever made available to the industry in Oklahoma.

Increased Sales Volume Permits Reduced Rates

For the fourth time in seven years, West Florida Gas Co., Panama City, Florida, announced a reduction in rates ranging from 10% to 18% savings for consumers.

Announcement of the reduction, effective Nov. 1, was made by Mack Lewis, vice-president and general manager of the West Florida Gas Co., a firm which serves northwest Florida with offices in Panama City, Tallahassee, Port St. Joe, and Crestview.

Domestic users will benefit by a reduction in rates on a sliding scale, according to consumption, up to 10%, said Lewis, while industrial users will be benefited by a rate cut which can go as high as 18%.

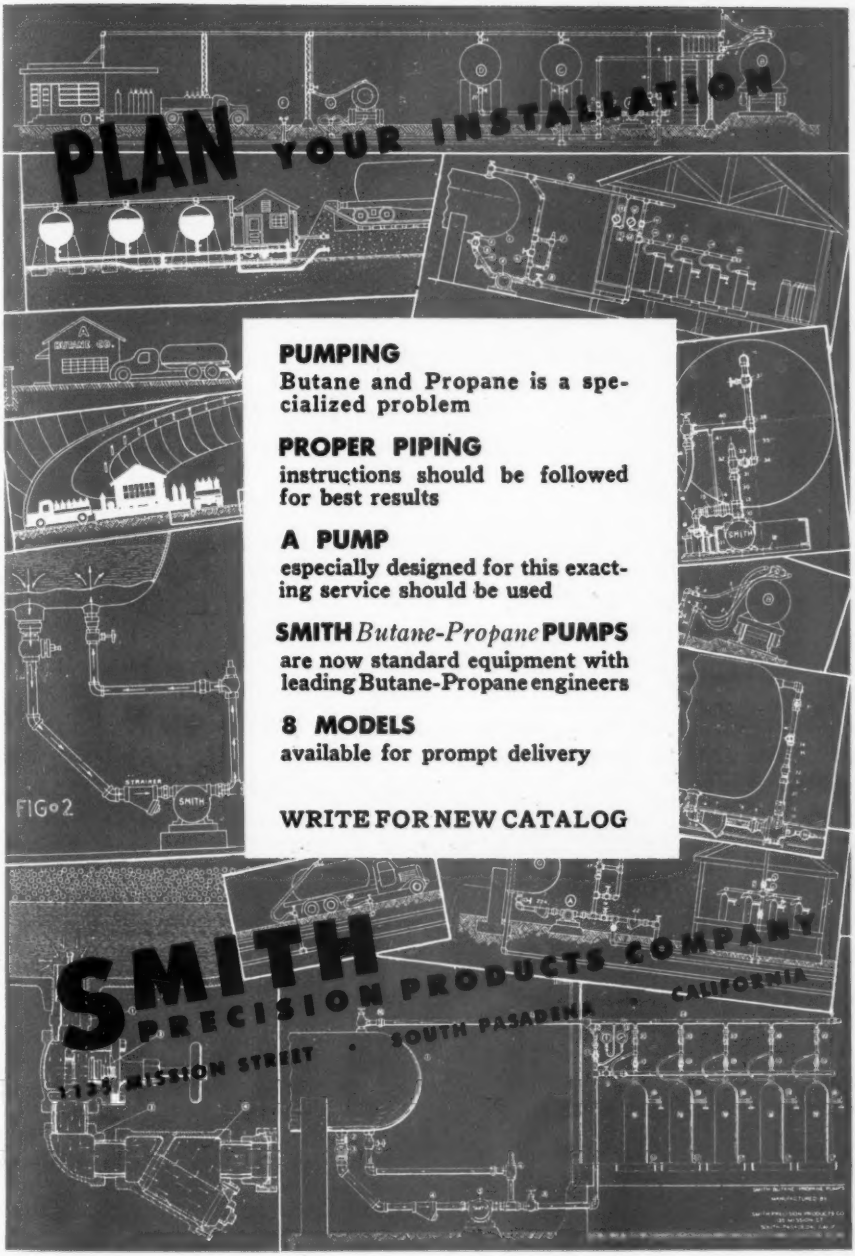
Officers of the company are A. M. Lewis, president, and Mack Lewis, of St. Petersburg, and A. D. Lawson, secretary-treasurer, of Port St. Joe. Frank Nelson is general sales manager for the firm and Henry Brown and O. L. Gibson head the installation and service department.

The company, established in 1939, distributes liquefied petroleum gas for four big jobs—heating, cooking, water heating, and refrigeration. They serve approximately 550 industrial users and 3500 domestic users.

"The curtailment in rates which went into effect on Nov. 1 is possible through increased volume of gas being used," said General Manager Lewis.

The firm employs 42 persons with an annual payroll of about $66,000. "It is interesting to note," said Lewis, "that the West Florida Gas Co., during 1945, spent $196,000 with business firms throughout the territory served."

The Tallahassee office is under the managership of E. T. Bell, St. Joe; A. D. Lawson, Crestview, and D. A. Lauderdale.


PLAN YOUR INSTALLATION
PUMPING
Butane and Propane is a specialized problem
PROPER PIPING
instructions should be followed for best results
A PUMP
especially designed for this exacting service should be used
SMITH Butane-Propane PUMPS
are now standard equipment with leading Butane-Propane engineers
8 MODELS
available for prompt delivery
WRITE FOR NEW CATALOG
FIG. 2
SMITH
PRECISION PRODUCTS COMPANY
SOUTH PASADENA
CALIFORNIA
1135 MISSION STREET

Modernizing Influences of LP-Gas Will Keep Youths on Farm, Says Speaker

APPROXIMATELY two year ago,* Consumers Cooperative Association, of Kansas City, launched its program on LP-Gas and since that time, even though handicapped by unavoidable obstacles, has made progress worthy of pride.

As of this meeting, there are 21 bulk plants shipped, each plant consisting of an 18,000-gallon storage tank and allied proper facilities for the rendering of efficient and fast service to its surrounding community.

There have been great strides in the LP-Gas industry. Just to enumerate, I wonder if you realize what a tremendous potential we have to work with. Twenty years ago, there were less than 5000 people in the United States who knew anything about or were using LP-Gas; in 1940 there were fewer than 500,000. We are informed that today there are 20,000,000 potential homes for our fuel and that 2,000,000 are now using it.

When we realize that only 10% of the potential has been touched, it is proof enough as far as the saturation point is concerned, that we have more opportunities in LP-Gas than in any other commodity in CCA.

There are an estimated 3¼ million homes in CCA's territory, all potential users of LP-Gas. The great appeal of LP-Gas is that now the farm home can and is being modernized like city homes. Ones of the great worries of the government in the past years has been the movement of farm boys and girls to the city, and our youth was not staying where most needed—in agricultural communities.

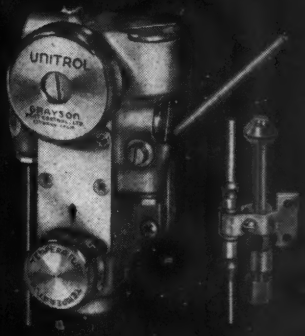
LP-Gas can and is changing this picture. With modern progressive ideas and knowledge being obtained and exercised by our youth, the standard of living and the health conditions of our nation are going to be materially increased. We are in a position with LP-Gas to encourage this improvement more than any other single commodity being merchandised by CCA.

There are a tremendous number of uses for LP-Gas in the farm home and on the farm. In the farm home where it is being properly used, it is like a wonderland compared to conditions in the home before.

On the farm, one of the most recent developments is a weeder in which propane gas is used for burning fence rows, and, recently, there has been talk of using this same plan in killing insects. This plan has a great potential. Even dehydration of farm commodities is now being introduced, working just as the threshing machine did some years ago; that is, one of these plants will be operated for the dehydration of farm commodities for the whole community. Dehydration, in removing moisture

* Abstract of a speech delivered by Mr. Pasley during the 18th annual convention of the Consumers Cooperative Association in Kansas City Nov. 27.

NEW GRAYSON UNITROL 'A'



5

advanced features.....

Constant working type
safety closure valve
assures positive shut-off

GRAYSON
HEAT CONTROL, LTD.
LYNWOOD CALIFORNIA

Appliances and equipment displayed for meeting of Consumers Cooperative Association in Kansas City.

from the grain products, allows the farmer to obtain a higher selling price.

On the West Coast, especially in California, there is a tremendous use of LP-Gas on power motors, such as tractors, station wagons, trucks and engine-powered apparatus on the farm. In CCA's territory there is one concern that has made 1500 such conversions this year. Our potential, as far as tractors are concerned, is practically unlimited and, to date, almost untouched. The equipment for these conversions can be furnished immediately with proper engineering help and advice. We must not overlook our opportunity here.

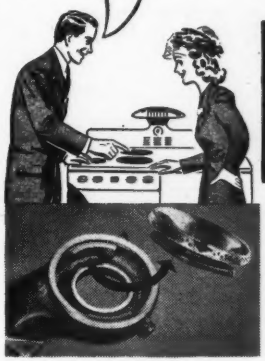
We have set a goal of $13,000,000 by 1951. Statistics show that the modern user in Oklahoma last year used 1300 gallons of propane. Our figures are based on the consumer using only 900 gallons of propane per year in 1951. Since most of our territory is north of Oklahoma, the consumption should actually be larger. We are quite confident that 900 gallons by 1951 is a very conservative figure. Also, we have set up the number of consumers as only 20% of our potential. Yet, using these figures and using conservative ones on the amount of this business we will obtain, it still figures out $13,000,000 worth of business. It is estimated that with the amount of appliances we are receiving, we will be able to do $1,000,000 worth of business this year. By 1951, we will have at least 100 bulk plants distributing this material in CCA's territory.

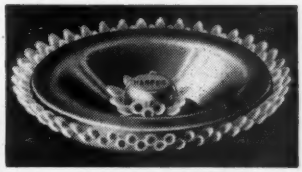
Here are a few figures which will show you what a wonderful opportunity we have here: One tractor conversion is worth as much in gas load as five average farm home installations. One restaurant installation is worth as much as 20 farm home range installations.

This is the new, improved
HARPER CENTER SIMMER BURNER

HERE is the new Harper top burner that is winning widespread acclaim from the gas industry. It will find equal favor with housewives because it makes possible even better cooking results than users of the Harper Burner have enjoyed in the past.

Years of laboratory research and field tests contributed to the development of this scientifically engineered burner. The net result is that it makes possible fuel savings up to 39%, eliminates guess-work in cooking, saves pot-watching, keeps kitchens cooler, offers more healthful, less wasteful cooking . . . cleaner, odorless cooking.





NEW, IMPROVED CONSTRUCTION!
Note how the two rows of flame ports are staggered, permitting better flame adjustment than is possible with ordinary top burners . . . flames do not "float off" or blow away . . . combustion is more efficient.

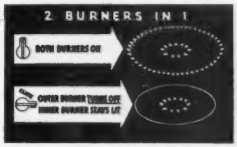
EASIER TO CLEAN!
No castings or bolts to remove . . . a slight twist removes burner for cleaning.

We're telling your Customers about it!

A NEW CONSUMER advertising program appearing in leading women's magazines tells prospective range buyers about the advantages of the Harper Center Simmer Burner. Many of these 21,500,000 readers will buy from *you*, and here's how you can trade them up to a higher-priced range:

We have prepared a FREE booklet, "How to Sell More Gas Ranges," which contains a series of quick, convincing sales floor demonstrations that graphically illustrate the superiority of the Harper Center Simmer Burner. Send for copies for your salesmen. Harper-Wyman Company, 8562 Vincennes Avenue, Chicago 20, Ill.

The Harper Center Simmer Burner operates on the unique principle of "2 burners in 1" . . . a STARTING BURNER for frying and to start foods boiling, plus a small, economical COOKING BURNER, to maintain the cooking . . . both controlled by the same handle. It is subject to finer gradations of low heats—greater control and economy—than any other top burner made.

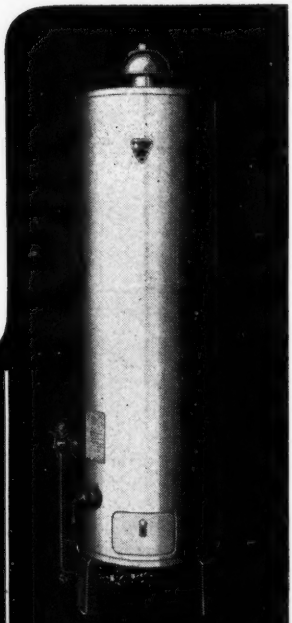


HARPER CENTER SIMMER BURNER *". . . Holds the Line for Gas"*

HARPER CENTER SIMMER

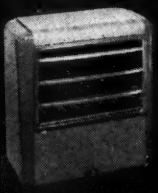
AMERICA'S FINEST

LINE OF WATER and SPACE HEATERS



Day & Night Water Heaters

Lectro-Glo Gas Wall Heaters



Cabinet Heaters

Portable Heaters

Panelray Vented Gas Wall Heaters

The broad line of *DAY & NIGHT* products meets every water and space heating need in the Butane-Propane Field. Behind the better performance and value of these products are more than 35 years' experience in building heating appliances. All models have been tested and approved by the American Gas Association laboratories for liquefied petroleum gas. *DAY & NIGHT* products are sold through wholesale jobbers in most territories. For the name of your nearest *DAY & NIGHT* jobber write us direct.

AMERICA'S FINEST WATER HEATER

DAY & NIGHT MANUFACTURING CO.

MONROVIA · CALIFORNIA

One of the Dresser Industries

"Jet" Propulsion Adapted to Orchard Heating

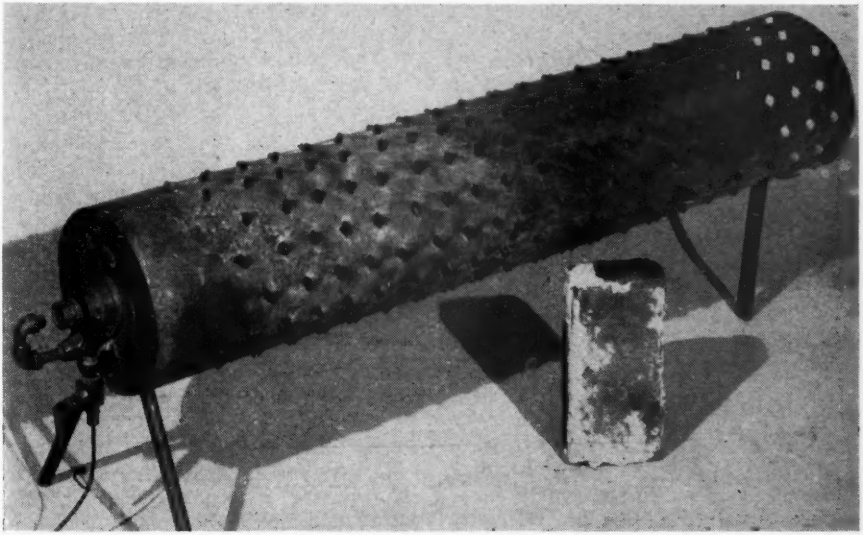
SOMETHING new in the line of an LP-Gas load builder has recently been patented by two California men, W. A. Lea, of Hollywood, and E. V. Ehrhardt, of Altadena, co-inventors of the new butane "jet" orchard heater shown in the accompanying pictures.

According to the inventors it is not only smokeless at any burning rate, but odorless as well, and can be adapted to many commercial applications such as dehydrating, drying operations, portable heating, volume heating, dissipating fog at airports, etc., where flame noise is not objectionable.

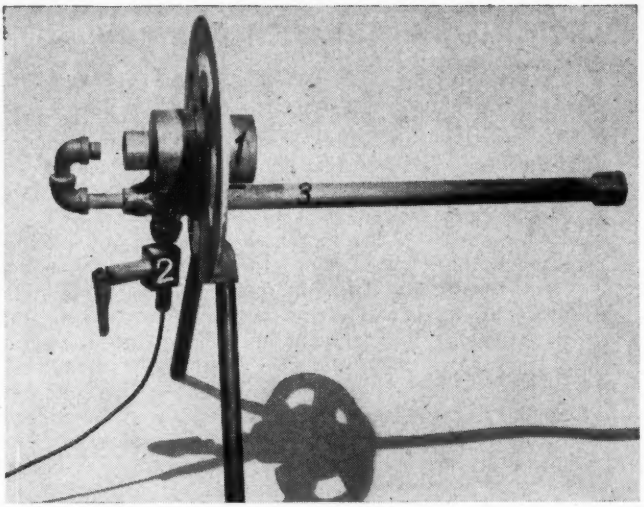
The common house brick in one of the pictures illustrates comparative size and position of the heater as used for orchard heating, the shell or "stack" being 7 inches in diameter by 3 feet in length. The heated air is "jet" propelled horizontally-forward.

The patented principle involved is based upon the familiar syphon jet in this manner: A high velocity flame from a blow torch type of burner capable of independent operation (and also capable of "smokeless" burning without the outside shell or "stack") is directed into one end of a louvered "stack" in such a manner that the forward mechanical velocity of the burning gas is utilized as a high velocity "jet" so that it syphons large amounts of cold air through the louvers into the "stack."

The resulting horizontal discharge



A new "Jet" butane orchard heater which hopes to replace oil smudge pots.



▲

Burner assembly of orchard heater. No. 1 is the burner, No. 2 the liquid valve, and No. 3 the pre-heater.

▼

is cool enough to permit anyone to stand in the blast.

Current practices in orchard heating involve so-called "smudge" pots (usually oil burners) which, in addition to resulting in excessive heat losses, create smoke or smudge in such quantities as to cause increased costs for washing fruit, retarding tree development and effecting untold damage to buildings and furnishings in districts surrounding groves.

The accepted "stack" of oil smudge pots now in general use varies from 2 to 4 feet in length. This means that most of the heat is discharged vertically from 3 to 5 feet above the ground at velocities that rise above the tree tops and out of the orchard in about one second.

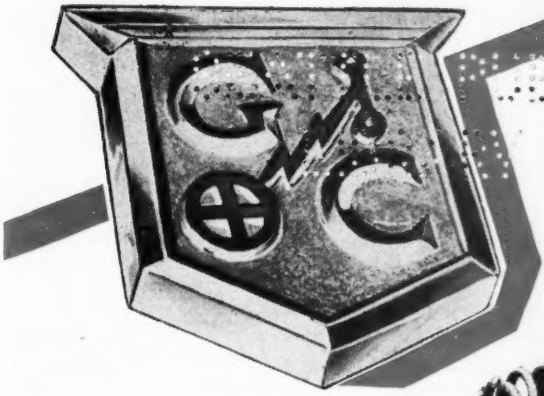
Obviously, very little of this heat is of any good to the trees or fruit until all of the air above the orchard has been heated by "inverse heating." This always necessitates early heating for a margin of safety. Because it is almost impossible, as well as too expensive, to get any protection below this discharge level of 3 to 5 feet, with this type of heater, much fruit is lost annually.

To eliminate these general troubles in orchard heating has been the aim of the inventors in their development of this butane "jet" heater, involving a new application of an old but useful principle.

When firing is needed these heaters are lighted and heat becomes effective immediately. At normal burning rates the horizontal discharge may exceed 10 cubic feet per second, and considering the movement of air to and from the heater, hundreds of cubic feet per second are set in motion by each heater.

These heaters discharge many times the amount of air needed for combustion and in this manner either the cold air is used up or circulated with warm air.

Original installation costs are said to compare favorably with oil, and annual costs of labor, fuel, depreciation, and upkeep less than half that of oil.



K-10
SERIES

UNSURPASSED ELECTRO-MAGNETIC LEVER VALVES

FOR CONTROLLING air, water, gas, steam, light and heavy oils, and refrigerants, etc. Suitable for pressures up to 1,000 pounds and temperatures up to 400° F.

Internal valve assembly can be removed for cleaning and inspection if necessary. Two-wire—A.C. or D.C.—current failure—packless construction—bronze body—stainless steel and bronze internal parts—soft seats available.

SIX TIMES THE POWER of ordinary solenoid valves. This feature assures high seating pressure and overcomes the effect of viscous fluids, such as heavy fuel oil. Adequate power of the solenoid insures positive operation. Available in normally closed or open types.

FOR COMPLETE SPECIFICATIONS on temperature, pressure and flow controls write for new 1946 Catalog 52C. 8-1

GENERAL CONTROLS
801 ALLEN AVENUE GLENDALE 1, CALIF.

FACTORY BRANCHES: Philadelphia, Atlanta, Boston, Chicago, Dallas, Kansas City, New York, Denver, [illegible]

Industry Manufacturer Develops Dealer Sideline

Electric and Carburetor Engineering Co., of Los Angeles, for many years a manufacturer of products for the liquefied petroleum gas industry, has begun production on a new type product known as the Magic Knife Sharpener.

E. E. Tattersfield, head of the organization, states that this new product is the result of work done by his company during the war and that it has proven to be one of the most successful developments to come from their plant in recent years.

The new sharpener is very simple in design but is made of the best materials and can be used effectively in home or shop for the sharpening of any cutting blade. The most important feature of the sharpener is its use of carboloy cemented carbide, the hardest metal made, as a sharpening blade. This blade will last for many years without losing its effectiveness.

The sharpener has certain patented features and is attractive in appearance. Mr. Tattersfield states that several large LP-Gas dealers have already stocked them for their showrooms and have found a ready market for them. He believes it is an item that can be sold as a specialty with success or may be given away free to customers if the dealer cares to do so.

Missouri Firm Incorporates

The Warrenton Gas Co. has been incorporated with $25,000 authorized capital stock by M. W. Voorhees, Bruce McLean and A. E. Conley to operate a liquefied petroleum business in Warrenton, Mo.

BRASS FITTINGS • COPPER TUBING
• TOOLS FOR TUBING • VALVES & COCKS

Write For Prices and Information to...

★ MIDLAND ★
PARTS & BEARINGS CO.
IRVING, KANSAS
1418-A Grand Ave.,
Kansas City, Mo.

PROVEN BY PAST PERFORMANCE

Sprague Meters ..ARE LEADERS IN LP-GAS MEASUREMENT

Designed to meet the requests of industry leaders, *Sprague Meters* have consistently demonstrated the soundness of their fundamental principles, the rugged sturdiness of their construction.

You are assured of precision service and full satisfaction to yourself and your customer when you specify "*Sprague*."

- **DEPENDABLE**
- **ACCURATE**
- **LOW IN COST OF MAINTENANCE**

The SPRAGUE METER COMPANY BRIDGEPORT, CONN.
DAVENPORT, IOWA • HOUSTON, TEXAS • LOS ANGELES, CAL. • SAN FRANCISCO, CAL.

LPGA Meeting in Pacific Southwest Series

THE second of a series of general organizational meetings now being sponsored by the South Pacific Section of the Liquefied Petroleum Gas Association was held at Sacramento, Calif., on Nov. 26.

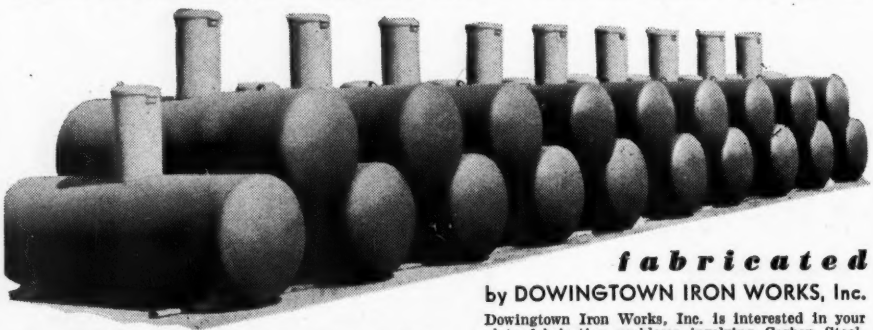
This one-day meeting was under the joint supervision of Tallent Ransome, chairman, South Pacific Section, and Gilbert Bragg, California chairman, LPGA. The meeting was planned and directed by Don McNary, assistant to Tallent Ransome.

Seventy-six members and guests were in attendance for the meeting which featured as speakers men prominent in the industry on the West Coast.

John Hodgkins, northern California salesman for James Graham Manufacturing Co., presented the "Appliance Outlook." He estimated that appliance manufacturers were approximately six months behind orders, the chief reason being that 80% of steel is still on strict priority. In spite of the shortage he said that more gas ranges have come into California this year than ever before.

Speaking on the "ABC's of Butane-Propane for Engine Uses," Roy Mylander, field engineer for Ensign Carburetor Co., cited carburetion as one of the best bets for summer load builders. Reminding the men of the ideal qualities of butane or propane

PROPANE UNDERGROUND STORAGE TANKS



fabricated
by DOWINGTOWN IRON WORKS, Inc.

Dowingtown Iron Works, Inc. is interested in your plate fabrication problems involving Carbon Steel, Chrome Iron, Chrome-Nickel, Silicon Bronze, Monel, Stainless Clad, Nickel Clad, etc.

These 450 gallon Propane Underground Storage Tanks are another example of the adaptability of Downingtown Iron Works, Inc. to handle all types of plate fabrication. They are 3' I.D. x 10' 1¾" long overall with .27/64" shells and ½" heads of S.A. 70 Firebox Steel. The Tanks are fabricated to A.S.M.E. Unfired Pressure Vessel Code, paragraph U-69 for 200 pounds W.P. Enclosures are of ¼" sheet with 5/32" hinged cover, hot-dipped galvanized. Clearance around covers of enclosures is maintained for vent purposes. Accurately built by skilled craftsmen, they are strong, safe and enduring.

Consult Us About Them

NEW YORK OFFICE: 30 CHURCH STREET

DOWNINGTOWN IRON WORKS
DOWNINGTOWN, PA.
WELDED and RIVETED PRODUCTS

BASIS OF FISHER DEPENDABILITY

Briefly stated—here are the advantages that Fisher LPG Control Equipment offer you. And every one is a good reason **why it will benefit you more to do business with Fisher.**

1. Dependability — The benefits of experience gained in 65 years manufacturing and developing automatic pressure regulation and control equipment. 18 years of manufacturing LPG control equipment.

2. A complete line of LPG control equipment meeting all individual requirements.

3. Leadership attained and maintained through Fisher engineering and research facilities.

4. Fisher regulators and controls are listed as standard by Underwriters' Laboratories.

5. Fisher pioneered with the first successful bottled gas regulator using composition valve disc and diaphragm.

6. There are hundreds of thousands of Fisher Regulators now in service. For years Fisher has supplied many of the major and hundreds of the independent distributors of LPG Regulators used in the United States and many foreign countries.

Get in touch with Fisher now regarding your 1947 LPG control equipment requirements.

FISHER

GOVERNOR COMPANY
991 Fisher Building
Marshalltown, Iowa

as a fuel, he explained the various applications of carburetion equipment ranging from 1½ hp. light plants to 450 hp. prime movers.

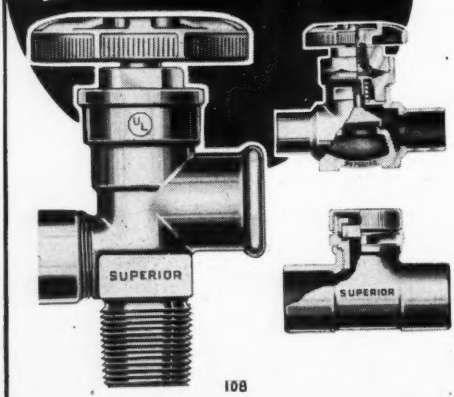
"Taxation as it Applies to Your Industry" was the title of a talk by Bert Foster, Deputy State Controller. He spoke of the growth of the LP-Gas industry in terms of tax refunds, explaining that when his department started, the total of all tax refunds amounted to $5,000,000, whereas now, LP-Gas refunds, alone, amount to some $2,500,000, and refunds are given out on over 100,000,000 gallons. Mr. Foster said the state was aware that inequities existed in the system but that revisions must originate with the consumers and distributors. He further urged the distributors to register their complaints with the department so that necessary changes in procedure can be made.

Ernest C. H. Jensen, assistant vice president of the Bank of America, discussing financing in the LP-Gas industry, stated, "Trade associations tend to produce uniformity in methods and procedures which make it easier for bankers to finance in that industry."

Don McNary briefly discussed the ICC and state regulations requiring that cylinders must be retested at five-year intervals. He pointed out that it was obviously impossible to retest all cylinders now overdue before the Jan. 17 deadline, but that those responsible for retesting must act in good faith and start making necessary preparations or arrangements. Mr. McNary said some companies are

Superior

LP-GAS VALVES AND ACCESSORIES



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For Bulk Stations, Tank Trucks, and above and below ground systems.

★ LP-GAS CYLINDER VALVES are listed as Standard and for re-examination service by Underwriters' Laboratories, Inc.

★ GLOBE, LINE AND ANGLE VALVES — Diaphragm Packless and Wing Cap — in Flare sizes from ¼" to ⅝" O.D.; Sweat sizes from ¼" to 2⅛" O.D.; F.P.T. sizes from ½" to 2".

★ SIGHT GLASSES, suitable for any normal LP-Gas pressure. Entire top assembly removable while soldering lines to body.

★ FLARE FITTINGS, including Unions, Couplings, Adapters, Elbows, Tees and Nuts — listed as Standard by Underwriters' Laboratories, Inc.

SUPERIOR
VALVE & FITTINGS COMPANY
PITTSBURGH 26, PENNSYLVANIA

Mutual . . . . TORCHES

Can Find New Customers For You

No. 4 Blow Torch

No. 4 BLOW TORCH has many uses. It is recommended for use with streamline pipe work, light brazing, lead burning, wire soldering and other light jobs. Heat is concentrated at point where needed. Weight ¾ lbs. Torch can carry two size tips; one for small pointed flame, other for streamline pipe work.

No. 5 BLOW TORCH was designed especially for pre-heating work. It is excellent for craftsmen who have close heating jobs to do. Torch is recommended for pre-heating compound filled joints, line shaft and pulleys and heavy welded jobs. Develops 2400 deg. of heat. Weight 1 pound.

No. 5. Blow Torch

No. 8 Paint Burner and Scraper

No. 8 PAINT BURNER AND SCRAPER is a combined hand torch and paint scraper. It will burn and remove more paint per man hour than any other paint burner on the market. Only one hand is needed to burn and scrape. It can also be used for removing linoleum, laying asphalt tile and other similar jobs. Any desired flame can be had by regulating flow at needle valve. Weight — 1½ lbs. Length — 16 in. Width of blade—3 in.

Mutual LIQUID GAS EQUIPMENT CO., Inc.
3600 West Imperial Highway, Inglewood, Calif.

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REFRESHING NEW DESIGNS

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EXCLUSIVE NEW FEATURES

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UNEXCELLED PERFORMANCE

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BRILLIANT NEW ROPER GAS RANGES FOR 1947 FEATURING JEWELS OF COOKING PERFORMANCE

If you have not yet received the 1947 Roper Catalogs and complete promotional plans, write us about them today. Here is a top line of merchandise, backed by more than 60 years of manufacturing "know how".

GEO. D. ROPER CORPORATION
ROCKFORD, ILLINOIS
Offices in Principal Distribution Centers

ROPER GAS RANGES

BUILT ESPECIALLY FOR LIQUEFIED PETROLEUM GASES

setting up portable equipment to make cylinder retesting available at all distribution points at a rather nominal cost.

A very interesting and enlightening demonstration showing the characteristics of LP-Gas which affect fire hazards, was given by Oliver Johnson, assistant superintendent of fire protection of Standard Oil Co. of California. Mr. Johnson demonstrated conclusively that LP-Gas was perfectly safe under normal conditions. The difficulty comes when inexperienced or careless operators allow conditions to become abnormal and then trouble begins. "A basic knowledge of handling fundamentals will prevent a lot of accidents from happening," Mr. Johnson concluded.

"What Would You Say?" was the title of a slide-film discussion of credit psychology presented by J. R. Graymont, district credit manager of Standard Oil. "The credit picture is changing and the time is coming when we will have to carefully examine every credit application and judge it on its merits."

The fourth organizational meeting for the South Pacific Section, LPGA, is scheduled for Los Angeles on Jan. 28. This will be a one-day affair at which prominent men will speak on problems facing the industry.

The meeting will be open to anyone interested in LP-Gas. The location of the meeting will be announced by mail, or can be had by calling Butane - Propane News, DRexel 4337.

This meeting follows the third general organization meeting held in Salinas, Jan. 3, which was too late for coverage in this issue. It will be summarized in February.

Dave Purrington's talk entitled "Abstract Reflections and Expostulations Involving the Hyperbole" was a highlight of the program. Listed as, "D. D. Purrington, Ph.D., Dean of Men, Milpitas Technological Institute," this was a talk, given in a humorous manner, which presented many of the important reasons for LPGA membership.

Testing Laboratories Issue Booklet on 1946 Activities

The 21st Annual Report of the American Gas Association Testing Laboratories has recently been issued.

This smartly illustrated brochure tells the story of the conversion of the Testing Laboratories in Cleveland from war-time work to the task of testing and approving the many new gas appliances and equipment being manufactured.

According to the report, the year's operations for 1945-1946 increased approximately 220% over the preceding year. Explanations of the contemplated revisions and extensions of standards are given as well as the story of the research efforts of the Laboratories.

The brochure explains about a sharp rise taking place in services rendered member companies, such as preparation and provision of technical data on special phases of production and distribution.

The plans and steps for the future are discussed. A list of "Domestic Gas Research Bulletins" is contained in the booklet.

New Firm for Fort Smith, Ark.

Edgar E. Sexton, Jr., and Shannon D. Bridges have announced that they will open the Fort Smith Butane Co. at 820 Rogers Ave. soon.

Wm. J. Murray Appointed to Texas Railroad Commission

Texas' Governor-elect Beauford H. Jester has named William J. Murray, Houston, to be his successor on the Texas Railroad Commission when Mr. Jester retires Jan. 21 to become governor.

Mr. Murray has served as a Railroad Commission engineer and as conservation engineer for the Petroleum Administration for War.

Natural Gas Odorizing Co. Now Part of New Firm

Charles E. Gill has announced the formation of the Natural Gas Odorizing Co., Inc., which has taken over the assets of the Natural Gas Odorizing Co., and the Petroleum Chemicals Manufacturing Co. and will operate the facilities of both. The new firm will continue to supply the gas industry with the products and service that have been given by the Natural Gas Odorizing Co. since its inception in 1942.

Officers of the new company are Charles E. Gill, president; John C. Worth, vice president and treasurer, and Howard W. Anderson, secretary. The plant and general offices are located at 7620 Wallisville Road, Houston, Texas.

Arkansas Men Incorporate

W. H. Taylor, Fred Wolf and Noah Taylor have incorporated the Arkansas Butane Gas Co., Inc., at Rockport, Texas, with $1200 authorized capital stock.

NEW CO-OWNERS

of

LINCOLN

Manufacturing Co.

Ralph Beisner

William Harvick

Fabricators of Butane and Propane Tank

Spheres or Cylindrical Type

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big, quiet fan

You have trouble-free heating, where and when you want it and at less expense with handsome Reznor Gas Fired Unit Heaters . . . located at ceiling height or floor level. Automatic controlled Reznor units answer difficult heating problems in thousands of factories, offices, stores, warehouses, and homes . . . in large and small areas.

Write for further data on comfortable, clean, economical Reznor units.

REZNOR
Gas fired unit heaters

SUSPENDED OR FLOOR MODEL

A SIZE FOR EVERY NEED

REZNOR CO.
MERCER, PENNA.

GAS HEATERS SINCE 1888

NO BOILERS • NO STEAM LINES
NO FUEL STORAGE • NO FIRE TENDING

HELCO

Now Approved by Underwriter's Laboratories

HELCO Regulator for Butane-Propane Service

Approved: California Industrial Safety Division No. 2099. Louisiana Liquefied Petroleum Gas Commission. Texas Railroad Commission. Inlet pressure—up to 250 lbs. tank pressure. Outlet pressure—11 in. water column. Capacity—400 c.f.h. Plus. Fittings—inlet P.O.L., outlet ¾".

Available for Immediate Delivery

On request we will be pleased to send you the performance chart on the HELCO Regulator 100-A.

H. E. Lynn & Co., Inc.

2041 Colorado Avenue
Santa Monica, California

L. C. Roney, 19 Years in LP-Gas Industry, Retires

L. C. Roney, prominent for years in the liquefied petroleum gas industry, retired from business Dec. 4, disposing of his interest in L. C. Roney, Inc., Inglewood, Calif. For an indefinite period he will be at his home in Los Angeles.

L. C. RONEY

Mr. Roney, fiery antagonist of anything detrimental to the development of the LP-Gas industry, came to the Pacific Coast in 1926 as district manager for The Bastian-Blessing Co., after five years with the company in the Chicago territory.

In 1928 he began concentrating on Bastian-Blessing equipment for LP-Gas, but left that firm nine years later to establish his own business in Los Angeles, though still handling the B & B line. In 1945 he gave up this connection, sold control of the corporation to A. B. Ruddock, and was retained as manager until his retirement. This new organization continued to manufacture and market a complete line of valves, regulators, gages, compressors and other butane-propane equipment.

Mr. Roney was twice chairman of the Pacific Coast Section, Liquefied Petroleum Gas Association, and served on the national board of directors of that organization, always taking an aggressive part in all efforts to raise industry standards and safety requirements.

STORAGE TANKS

READY TO GO!

This 25½-ton storage tank left McDonough Steel Company's main yard for the Southern Oregon Gas Company's Medford operation nearly ten years ago. It is still rendering dependable service. The experienced craftsmen of McDonough Steel Company have the "know-how" to build tanks that last!

*McDONOUGH STEEL CO. *tank installations have these three essentials: sound engineering, finished craftsmanship and exact conformity to specifications.*

PATRICK W. McDONOUGH, President
McDonough Steel Co.

McDONOUGH STEEL CO.
FORMERLY BOILER TANK & PIPE COMPANY
800 75th AVENUE · OAKLAND 3, CALIFORNIA

Radio listeners in a wide area heard the story of LP-Gas from eight members of Liquefied Petroleum Gas Association on Sunday, Nov. 10, during the regular broadcast of Listerine's "Quiz of Two Cities". The New York team included representatives of manufacturers of LP-Gas ranges, refrigerators, space heaters and water heaters. The Chicago team (above) consisted of four distributors. From left to right: Lawrence H. Selz, publicity counsel, who coached the team; Verne Mueller, Wisconsin Bottle Gas Co.; Joseph Crowden, Indiana Bottled Gas Co.; Holland Engle, master of ceremonies; Kenneth Rugh, Phillips Petroleum Co.; and LPGA's president, Charles O. Russell, Thermogas, Inc., Des Moines, Iowa. Similar broadcasts will be held in about 30 other cities.

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of DOMESTIC TANKS

wholesale only

BUTANE-PROPANE
Underground tanks
with two-riser
Weatherhead fittings

PROPANE
Above ground tanks
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Air Borne Carburetion
IS PACKAGED WITH ALL NECESSARY FITTINGS!

NO NEED TO SEARCH FOR EXTRA PARTS...

The complete *Air Borne* unit is carefully fitted into a strong wooden box at the factory. Into it goes the carburetor, heat exchange unit, hose and all necessary parts including hose, clamps, fuel line, connectors, mounting bolts and brass fittings.

Additional installation time is saved because of Air Borne's flat design which allows mounting in minimum space. Special mounting studs allow straddling of vacuum lines, conduit, etc., which may be already in position.

FURTHER INFORMATION WILL BE GLADLY SENT ON REQUEST

Air Borne Products Company

1829 East Randolph Street, Los Angeles 1, Calif. ★ LUcas 0185

SEE YOUR DEALER

POWER

Safe Use of Liquefied Petroleum Gas As a Fuel For Automotive Vehicles

THE use of liquefied petroleum gas as fuel for internal combustion engines has increased rapidly in recent years. Certain specific precautions are necessary in order to prevent accidental injury and property damage. There are certain advantages in using liquefied petroleum gases for the operation of internal combustion engines of automobiles, trucks, buses, tractors, mine locomotives and high speed railroad trains, as well as in the stationary engines in industry.

The theory of operation in using liquefied petroleum gas is that the liquid is forced out of the fuel tank by its own pressure through a filter and into a high pressure regulator, which reduces the pressure. The liquid then passes to a vaporizer or heat exchanger where it is thoroughly vaporized. The vaporized and expanded gas is then further reduced to approximately atmospheric pressure by a low pressure regulator, from which it is metered to the gas-air mixer or carburetor. In the carburetor, the gas and air are mixed in proper volume for use in the engine cylinders as fuel.

Liquefied petroleum gas expands very rapidly when released to the atmosphere and being extremely flammable, every effort should be made to eliminate the possibility of leaks by the use of suitable equipment and proper maintenance and operation of automotive vehicles.

In spite of these precautionary measures, if a leak does occur the consequences could be very serious

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This discussion is the fourth in a series on liquefied petroleum gas and presents the fundamental principles governing the safe use of liquefied petroleum gas as a motor vehicle fuel. The other publications in the series are:

1. **"Liquefied Petroleum Gas—What It Is—How It Acts."**
2. **"Safe Operation of Motor Vehicles Transporting Liquefied Petroleum Gases."**
3. **"Safe Motor Vehicles and Equipment for Transporting Liquefied Petroleum Gases."**

This series was prepared by the Liquefied Petroleum Gas Research Committee of the National Conservation Bureau. The committee is composed of engineers of member companies who are making a special study of the hazards in the manufacture, distribution and the use of liquefied petroleum gases.

The term "liquefied petroleum gases" means any product which is composed predominantly of any of the following hydrocarbons or mixtures thereof: propane, propylene, butanes (normal butane or isobutane) and butylene.

Copies of the original pamphlet may be had from the National Conservation Bureau, 60 John St., New York City.

because the gas is under pressure in the entire system.

It is essential that all parts of the fuel system be properly installed and maintained; also, that it be frequently inspected to prevent leaks and the loss of fuel. All persons who fill fuel tanks with liquefied petroleum gas and those who maintain, repair and operate the vehicles should be competent, and thoroughly trained in the handling of such equipment.

Certain states, municipalities and the Interstate Commerce Commission have issued regulations covering the use of liquefied petroleum gases. In those places where there are no legal regulations or when the Interstate Commerce Commission regulations do not apply, then the standards set by the National Board of Fire Underwriters, Pamphlet No. 58, should be observed. Division IV of this pamphlet applies specifically to containers and pertinent equipment for using liquefied petroleum gas as an engine fuel.

As it is possible to cover in this discussion all the matters on the subject that may be necessary to consider, it is suggested that reference be made to the other pamphlets of this series and to the publications listed in the bibliography for more detailed specific information.

Engine Design and Conversion

1. The use of liquefied petroleum gas as an engine fuel requires that automotive engines be especially designed to use this fuel. However, the demand for such engines is expected to be greater than the supply; therefore, many existing internal combustion engines and associated fuel systems will be converted. The conversion of these units must be properly engineered to ensure safe operation.

Truck operated in desert heat and mountain areas of California and Arizona, using a Hall-Scott 400 series engine equipped with "Algas" convertor and carburetor.

ENSIGN
CARBURETION
For Maximum Power and Economy

ENSIGN Fuel Regulators and Gas Carburetors function together to make a highly efficient and controlled mixture of air and fuel necessary for correct combustion under all operating conditions of the engine.

ENSIGN'S constant research and development since 1911 have resulted in new and improved principles—those exclusive features enjoyed in today's carburetion.

ENSIGN Carburetion for Natural Gas and Butane-Propane is made for internal combustion engines of all types and sizes; from the constant speed stationary engine to high speed power units and truck engines.

Write us your carburetion problems. ENSIGN engineers, service men and distributors everywhere are glad to be of service.

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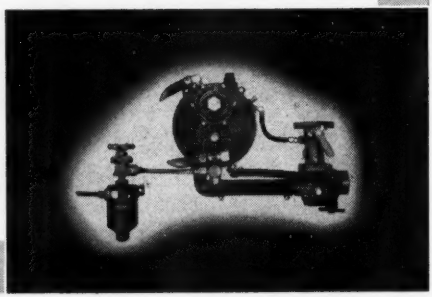


2. When an internal combustion engine is being designed or converted for the use of liquefied petroleum gas as a fuel, several important factors require consideration to derive the maximum efficiency from the use of this gas. Liquefied petroleum gas requires an increased engine compression up to as much as 230 pounds per square inch, depending somewhat upon the bore and the design of the combustion chamber.

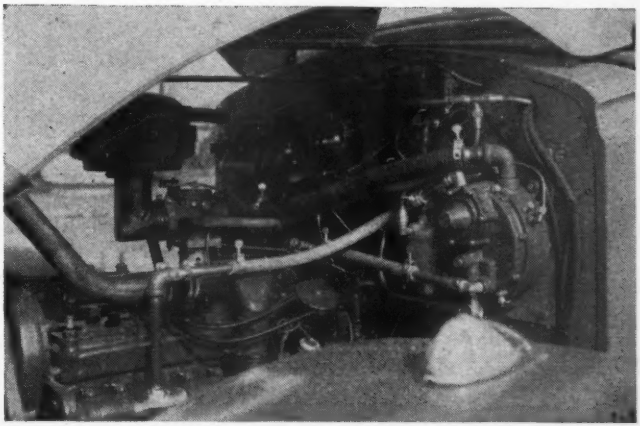
3. As the compression ratio is increased, the load on the ignition system is greatly multiplied and the whole ignition system must be designed or modified, also properly maintained, to handle this load. Cold type spark plugs are generally required. Intake manifolds to function properly should have the exhaust heat removed or special cold manifolds installed.

4. It is essential that all fittings in the fuel system be absolutely leak-proof and free from excessive vibration and the sources of external ignition of fuel vapors. All conversion work should be conducted by thoroughly competent mechanics who have been specially trained. Otherwise, considerable operating difficulties and trouble may be anticipated, including the possibility of fire or explosion.

Fuel Tanks

5. Liquefied petroleum gas fuel tanks for automotive vehicles should comply with the Interstate Commerce Commission, state or municipal regulations governing them. If no legal regulations apply, the requirements given in N.B.F.U. Pamphlet No. 58, the American Society of Mechanical Engineers, *Boiler Construction Code, Section VIII, Unfired Pressure Vessels* as amended, or the American Petroleum Institute—American Society of Mechanical Engineers' Code, *Unfired Pressure Vessels for Petroleum Liquids and Gases* as amended, should be followed.

The fuel tanks on the vehicle should be fastened in such a man-



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The butane converted truck engine with Ensign carburetion.

▼

Large capacity dump truck of Griffith Co., Los Angeles, with Ensign carburetion.

ner as to eliminate the possibility of its shifting and furthermore, should be located in such a manner as to avoid being damaged while the vehicle is in motion and be protected with substantial guards or barriers. All excess flow valves, liquid level valves and other accessory valves and appliances should comply with the standards of the National Board of Fire Underwriters' Pamphlet No. 58.

Fuel tanks should be permanently installed because the use of interchangeable containers is liable to increase the possibility of leaks from faulty connections or insecure anchorage. Fuels may be used from the cargo container of a truck to operate the vehicle engine, but should not be used from cargo containers on trailers or semi-trailers.

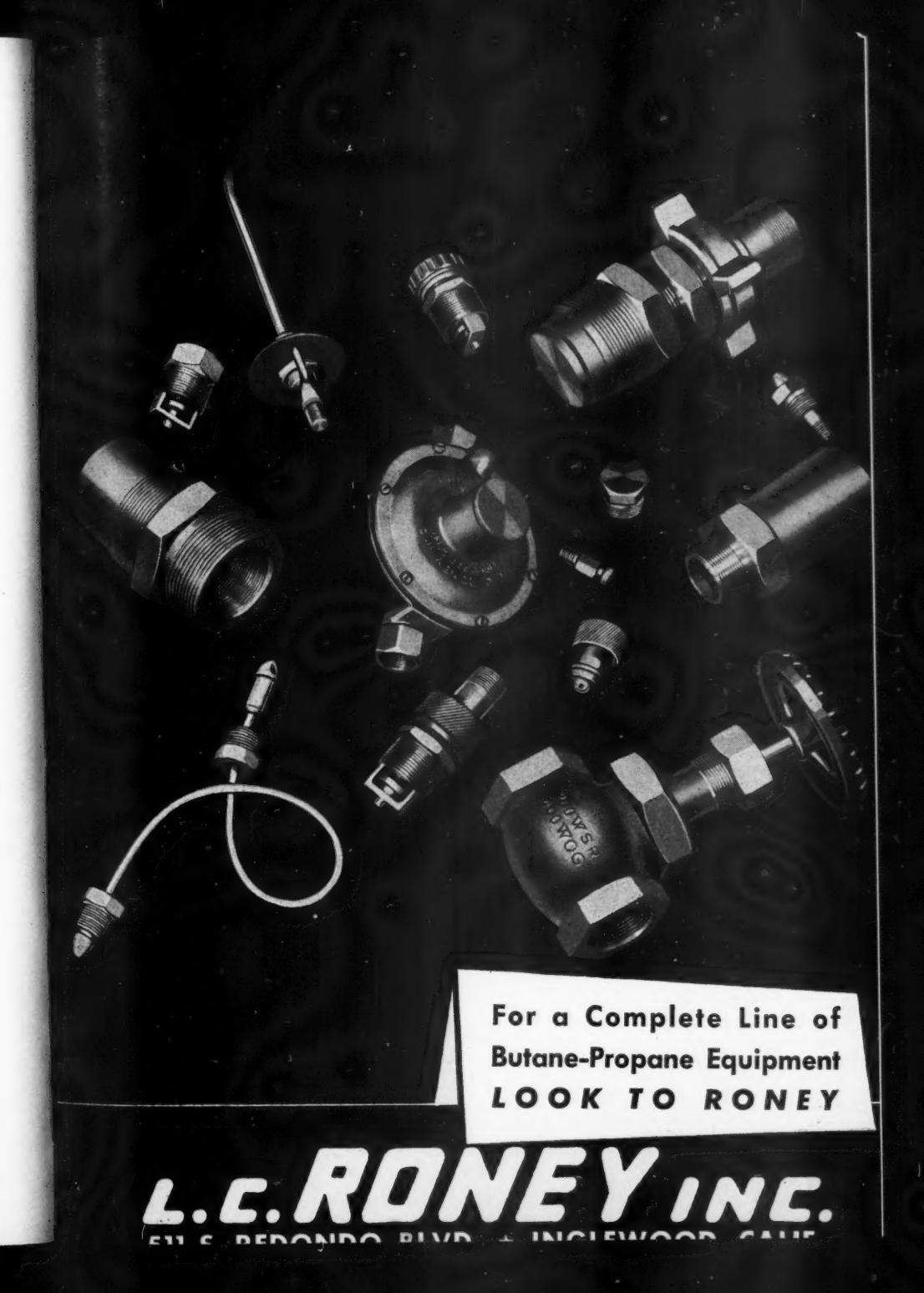
Accessories

6. The following accessories should be included in the fuel system:

1. **Pressure Relief Valves.**
2. **Excess Flow Valves.**
3. **Back Pressure Check Valves.**
4. **Vent Valves.**
5. **Liquid Level Gage Devices.**
6. **Pressure Gages.**
7. **Shut-off Valves.**
8. **Piping and Fittings.**

The use of these accessories introduces the need for the safety precautions which are briefly described below:

(a) All valves, fittings or other connections of the screw type should be sealed against leakage by the use of a joint compound that will provide a non-metallic film. The compound should provide protection against corrosion or deterioration of the metal. It should make a perfect seal, but not a permanent bond so that it will be possible to remove the valve or fit-


For a Complete Line of
Butane-Propane Equipment
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tings at any time without damage. The compound should not be soluble in oil, water or gas and the seal should be effective under pressures of 250 pounds per square inch at 100 degrees Fahrenheit. Ordinary pipe dope or orange shellac should not be used.

(b) All piping located beyond the excess flow valve should be of such size that the excess flow valve will close if failure of the pipe occurs.

(c) Discharge from pressure relief valves should be vented vertically upward from the highest point on the vehicle to the atmosphere through suitable piping, substantially supported and fitted with loose rain caps. Pressure relief valves should be installed in separate tappings made in the fuel tanks or may be incorporated in the vapor valves. They should, however, in all cases be connected to the vapor space of the fuel tank.

(d) Excess flow valves should be incorporated as an integral part of the fuel tank discharge.

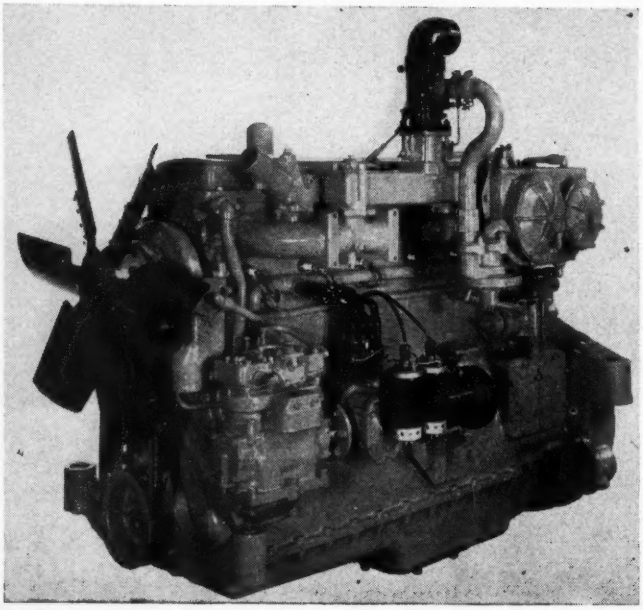
More complete information on valves, fittings and other attachments may be obtained by a reference to the latest edition of the "Handbook of Butane - Propane Gases."

Refueling Operations

7. In refueling operations, care should be taken to see that the fuel tank is not filled above the allowable limit as specified in the National Board of Fire Underwriters' Pamphlet No. 58.

8. Refueling should not be done by changing the fuel tanks because the hazard from leakage and broken fuel lines is accentuated.

Refueling vehicles should be done perferably out of doors, but never



A Hall-Scott engine, factory equipped to use butane to best advantage. "Algas" convertors and carburetors are used.

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SET THE PACE EVERYWHERE!

Make sure of heavier fuel loads in 1947 by "talking up" Algas conversions for internal combustion engines. Ideal for

Farm Tractors • Oilfield Engines
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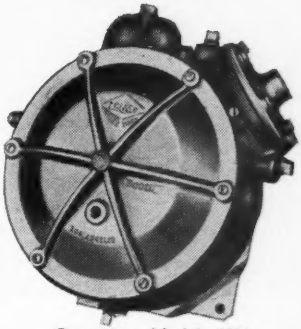
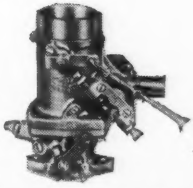


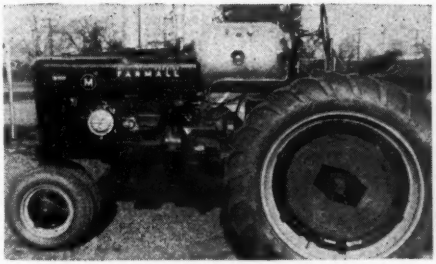
Converter, Model 1500

The Algas Converter may be used with either of the Mixers illustrated, or in several other combinations.

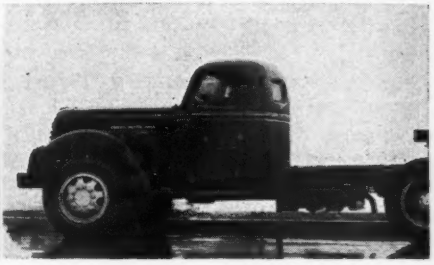


Above: Multi-jet Mixer, Model H-1400
Left: Multi-jet Mixer, Model V-1400

Write for complete descriptive literature.
1109 South Santa Fe Avenue
Los Angeles, California



TRACTORS



TRUCKS

AMERICAN LIQUID GAS CORPORATION
Los Angeles Chicago

Track-laying tractor equipped to burn LP-Gas.

on the road from small portable tanks. Refueling of vehicles should always be done in well ventilated locations. Above all, specially designed liquefied petroleum gas pumps with the necessary safety appliances should be utilized. The special hose nozzle which eliminates the possibility of leaks and a grounded hose should also be used.

Adequate fire extinguishers should be kept available for instantaneous use, when circumstances warrant them. They should be of the type for controlling oil fires—type "B"—(see Table, Section 25 of Pamphlet No.I-115 "Safe Motor Vehicles and Equipment for Transporting Liquefied Petroleum Gases"). Smoking should be prohibited in the vicinity of refueling operations and the vehicle engine should be stopped.

Storage and Repair of Vehicles

9. Vehicles, which are fueled by or used to transport liquefied petroleum gases, preferably should be stored out of doors. When this is impracticable, then mechanical ventilating equipment having sufficient capacity to prevent accumulations of gas in the event of leakage should be provided. All possible sources of ignition, such as open flame heating devices, should be safeguarded or eliminated. All electrical equipment should be of the type approved for hazardous locations, Class I, Group D, as specified in Article 500 of the National Electrical Code.

Repair pits, when necessary, should be located out of doors, because the liquefied petroleum gas vapors are heavier than air and will collect in lower levels. Vehicles

TATTERSFIELD

HI-COMPRESSION HEADS for more POWER — ECONOMY

IMMEDIATE DELIVERY

Illustrated are hi-compression heads and manifold for Ford and Mercury engines. FEATURES: Designed to give equal distribution of fuel; is free of heat; has large open ports to insure better mileage at all speeds. The hi-compression heads are engineered with specific designed combustion chambers and cooling fins for the utmost in power and smoothness.

Electric and Carburetor Engineering Co.

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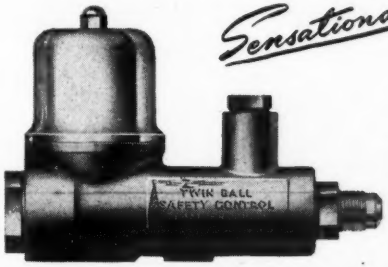
NO MORE FIRE!

Sensational TWIN-BALL SAFETY CONTROL



LOCKOFF FOR BUTANE-PROPANE OPERATED EQUIPMENT

Save on fuel. Fuel is off when ignition is off.

Available 6v or 12v. Draws only 1.6 amperes.

Fuel supply tank selected from cab while in motion.

Easily installed. Connects in fuel feed line.

- IDEAL FOR SOUNDING AIR HORNS.
- LEVER ARM GIVES 8 TIMES THE POWER.
- EASILY CONVERTED. NORMALLY OPEN OR NORMALLY CLOSED.

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LOS ANGELES, 21, CALIF.

DEALERS WRITE FOR FULL PARTICULARS

involved in accidents should be carefully inspected before they are returned to service. Special attention should be given to any evidence of leakage, stress, or shifting of fuel systems.

If there is any indication of damage to a fuel system, a careful examination should be made by a certified pressure vessel inspector. Repairs should be made only by persons skilled in pressure tank work, and should meet the requirements of the inspector. Repaired systems should not be returned to service until their use is approved by the certified pressure vessel inspector.

Conclusion

10. The inherent hazards in the use of liquefied petroleum gas fuel for automotive vehicles can be readily controlled by the establishment and enforcement of proper safety rules governing the installation and maintenance of equipment, the use and operation of the motor vehicle and the refueling operations. Proper equipment and maintenance are essential but trained workers and operators are the best assurance for safe operation of automotive vehicles powered with liquefied petroleum gas fuels.

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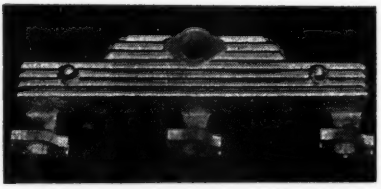
3. National Board Fire Und.—"Standards for the Design, Installation and Construction of Containers and Pertinent Equipment for

Write FOR NEW LITERATURE ON ELLIS MANIFOLDS

Prove to your own satisfaction that a specially designed *Bu-Power* Manifold puts power and economy into a butane converted truck. Here are some of the reasons why:

1. 60% LOWER OPERATING TEMPERATURES —maintained by the presence of seven cooling fins, extending the full length of aluminum manifold.
2. 73% MORE VOLUME (than stock manifold)—permits the use of larger venturi.
3. PERFECT DISTRIBUTION to all cylinders means a smoother operating engine.
4. EASILY INSTALLED — every manifold has three vacuum brake take-offs.



5. STEEL EXHAUST "BLOCK-OFF" PLATES FURNISHED ON REQUEST — Cutting or welding exhaust manifold eliminated.

Our dealers, who "Bu-Power" installations, find their customers enjoy BETTER PERFORMANCE—INCREASED MILEAGE.

ELLIS MANIFOLD COMPANY

1708 S. Soto Street ★ Phone AN 1-3463 ★ Los Angeles 23, California

SMITHway COMBINATION LPG SYSTEMS

supply all the gas needed for every home, farm, and ranch use

● In the home, low-cost gas for cooking, hot water, refrigeration, heating on the farm and ranch, low-cost gas for light, heat, power, flame cultivation.

A single SMITHway Combination System—above ground or underground—will supply cheaper gas for all these and other services.

WHY A COMBINATION SYSTEM?

With a SMITHway System, owners can use either butane or propane—whichever is cheaper and more easily obtainable. A SMITHway System is a permanent investment—highest quality materials and workmanship assure long life and trouble-free service.

These new heavy-duty units (250 to 500 gal.) permit quantity purchases of LP gases at lowest cost.

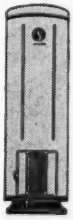
POSITIVE SAFETY PROTECTION

In the manufacture of SMITHway Systems, A. O. Smith uses procedures and standards heretofore reserved only for the most exacting industrial products.* SMITHway Systems meet or exceed all safety codes; each is double checked by an independent licensed insurance inspector.

SMITHway Combination Systems open up a new and bigger future for the use of economical LP gases in the home, on the farm, and in business and industry.

Get all the facts today. Write the A. O. Smith office nearest you.

The A. O. Smith Corporation manufactures *Permaglas* LPG Water Heaters with mirror-smooth tanks of sparkling blue glass-fused-to-steel.



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Acknowledgement

The Liquefied Petroleum Gas Research Committee gratefully acknowledges the cooperation and helpful suggestions of the Interstate Commerce Commission, Bureau of Motor Carriers; Phillips Petroleum Company; Atlantic States Gas Company of New York, Inc.; and the Liquefied Petroleum Gas Association.

Butane & Propane

Carter high quality Butane and Propane are unsurpassed as domestic and industrial fuels. Bulk loading points, St. Elmo, Illinois, Seminole and Stonewall, Oklahoma. Wholesale only. Your inquiries are solicited.

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TULSA, OKLAHOMA

48 STATES COVERED ...*and her too!*

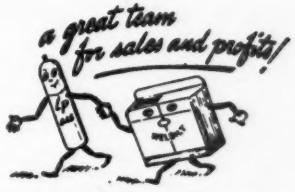
Welbilt gas ranges reach into more than 1600 counties . . . to markets which constitute over 90% of gas range users.

This complete net-work of gas range outlets gives Welbilt the extensive consumer acceptance that makes for an outstanding national brand reputation.

Whether it is in the hinterlands or in cities, you will find gleaming Welbilts in homes throughout the United States.

It has taken more than concentrated sales development to reach this enviable goal. It has taken years of consistent and careful merchandising to enable dealers to get their fair share of profits with the Welbilt line. It has taken continued engineering development and high standards of factory production that identifies Welbilt as one of the model plants in industry today.

The Welbilt franchise is more than a gas range line—it is a proven line with assured mark-ups for profitable selling.



WELBILT STOVE CO. INC.
MASPETH, L.I., N.Y.

MORE Welbilt Ranges WILL BE DELIVERED SOONER!

Trailer Supply Firm Will Make 5000 ICC Bottles Weekly

The shortage in ICC bottles has just been lightened, according to announcement made by the Coast-to-Coast Trailer Supply Co., Los Angeles. The Coast concern is a leading, national, wholesale distributor of butane-propane equipment for trailorcoach use.

The difficulty of getting either manufactured bottles or steel for them made it impossible for the Coast-to-Coast company to fill their orders.

The situation reached the status of an emergency, and Coast-to-Coast put two engineers to work on the problem. In 21 days the researchers located enough steel to insure production of 5000 5-gallon bottles weekly for a period of six months, gained approval and placed in operation plans for manufacturing an ICC bottle.

This bottle, now in full production, is made of 3/16" steel to ASME standards, giving it a 5-to-1 safety factor. These heavier ICC bottles are approved and fillable in every state of the Union, plus Canada, Mexico, Alaska, South America and all European countries, according to company officials. They are available in large quantities for immediate shipment.

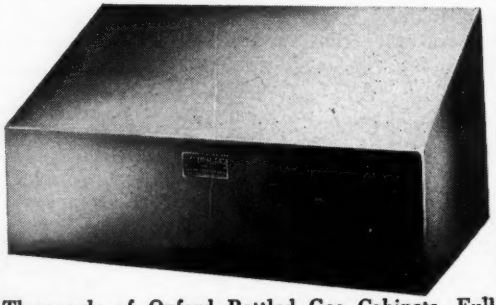
Data sheets covering specifications and testing of these ICC bottles are available from the Coast-to-Coast Trailer Supply Co., 823 W. Second St., Los Angeles.

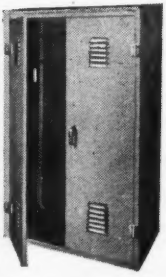
OXFORD BOTTLED GAS CABINETS

for Long and Satisfactory Service

(Right) Dual Hood Type

(Below) Full Size Cabinet





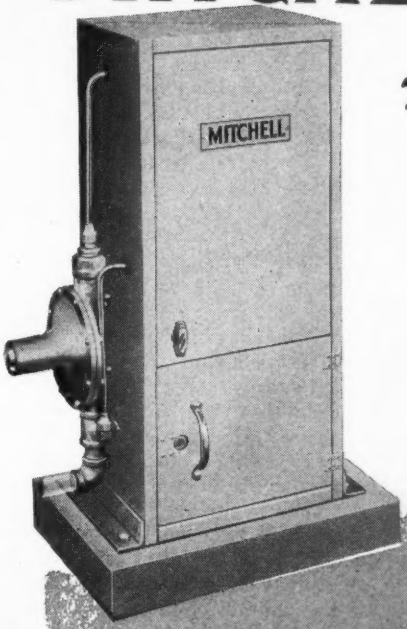
Thousands of Oxford Bottled Gas Cabinets, Full Size, Single Hood and Dual Hood Types are in use in many parts of the country, giving highly satisfactory service. Constructed of heavy metal with a protective coating of paint or galvanized to insure rust resistance, cylinders, valves, regulators, etc., are safely guarded from accidents or weather. Write for prices and details.

OXFORD LIQUID PROPANE VAPORIZER

Designed for bulk plant installations. Insures vaporized gas in any degree of cold weather. Outstanding superiority is that it is installed OUTSIDE the tank—always accessible. Write for details and prices.

THE OXFORD COMPANY, OXFORD, PA.

THE MITCHELL VAPORIZER LP



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ABOVE GROUND

or

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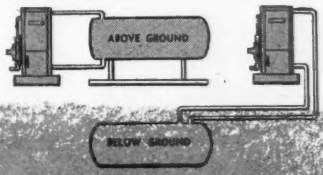
TANKS

unvarying

ALL-SEASON SERVICE



The Mitchell Vaporizer is a compact, efficient unit for converting Liquefied Petroleum Mixtures into gas of unvarying BTU content at uniform pressure. Easily installed, its operation is equally efficient with either **above** ground or ***below*** ground storage tanks.

A patented safety principle eliminates the possibility and danger of excessive pressures and automatically varies the rate of vaporization to suit the demand. Regardless of the LP Mixture or climate temperatures the Mitchell Vaporizer produces a dependable supply of gas at all times.

One of the most important developments in the LP Industry, the Mitchell Vaporizer now provides a safe, economic method of using Liquefied Petroleum for the heating and power demands of the domestic, industrial and automotive fields.

Write for complete details and descriptive literature

JOHN E. MITCHELL COMPANY

Manufacturers of Fine Machinery for *Forty Years*

DALLAS, TEXAS

PRODUCTS

Valve Head

American Pipe & Steel Corp., Alhambra, Calif.

Description: The "American Multi-Valve Head" has been designed, manufactured and tested to withstand high pressures and provide a safe method for filling and evacuating

liquefied petroleum gases. The upper portion of the head is compartmented and an internal pipe runs from the vapor chamber to the top of the tank which permits this compartment to serve three functions—(1) vapor return, (2) safety valve, and (3) vapor supply valve.

The lower compartment of the head has a pipe running to the bottom of the tank which supplies liquid to it, thus permitting the tank to be filled through the filler valve and evacuated through the same filler valve. An opening is also provided for a liquid withdrawal valve when required.

The outage valve communicates with a pipe running up to the liquid level desired, or as set by the Underwriters' Laboratories, indicating when the tank has reached the desired filling level.

The Rochester magnetic type float gage is mounted in the center of the head, serving its functions fully without obstruction.

The body of the head is brass and in every respect meets the requirements of the ASME Code and has passed all tests required by the Underwriters' Laboratories, Inc.

The American or "Red Head" liquefied petroleum gas system for storage, dispensing, gas generating, is unique in that this is the first multi-valve unit on the market for horizontal mounting in which an installation can be made with pipe communicating with the head, one pipe contacting the top of the tank for vapor and another contacting the bottom of the tank for liquid service. Patents are pending.

Water Heater

Servel, Inc., Evansville, Ind.

Model: WA-20W; WA-30W; WA-45W.

Description: This new, round, water heater is available in 20, 30 and 45 gallon capacities. In order to eliminate rusting and leaks caused by rusting, the heater is made of toughened copper. In order to save heat, the heat exchanger passes through the

center of the water tank, transmitting heat to all levels.

All controls are enclosed to prevent tampering, yet readily accessible behind a finger-tip panel and an average of 3 inches of insulation is provided. A new type burner operates silently, eliminating puffing or popping. It is completely automatic in operation.

Orifice Adapter

The Midland Parts & Bearings Co., Kansas City, Mo., and Irving, Kans., have recently engineered an orifice adaptor which can be used for renewing 60% to 70% of all old orifices. Also, this adaptor can be used to convert many orifice outlets to sizes and specifications necessary for conversions.

With Midland Parts special equipment old orifices can be made like new, or conversions in sizes made in as little as 20 seconds.

In order to convert or renew old orifices all that is necessary is to remove original orifice from appliance and place it in a specially designed anvil, locking securely with thumb screw. After this operation the orifice is reamed out with a reamer designed to make the outlet just the right size for the orifice adaptor to fit into. The orifice adaptor is started into the outlet with finger pressure, then taped down solid with a hammer blow and crimped on opposite side. In the majority of cases this is all that is necessary; however, Midland has developed tools for further adjustment of orifice outlets if necessary.

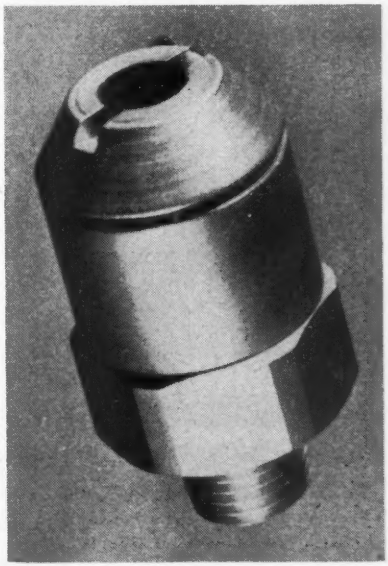
Complete information may be had about this orifice adaptor by writing Midland Parts & Bearings Co., 1418 Grand Ave., Kansas City, Mo.

Relief Valve

L. C. Roney, Inc., 511 South Redondo Blvd., Inglewood, Calif.

Model: R-2843 Relief Valve.

Application: This safety valve is used as "liquid full" relief when in-



stalled in a line section between two shut-off valves. This model is also applicable as a vapor relief on small containers up to approximately 40 gallons.

Description: A new compact design of pleasing external appearance. R-2843 is equipped with a ¼-inch American Standard taper pipe thread for installation in small vessels or in liquid lines. R-2843T is similar in construction but is equipped with a ¾-inch American Standard taper pipe thread for installation in tank taps or pipe line fittings. The area under the resilient synthetic seat is .062 sq. in. Adequate gas passages through the valve and ample lift of the valve from its seat insure full flow capacity.

Brooder Sales Manual

The A. R. Wood Manufacturing Co., Santa Cruz, Calif., has issued a "Dealers Sales Manual" with instructions for assembling and operating the A. R. Wood radiant gas brooders.

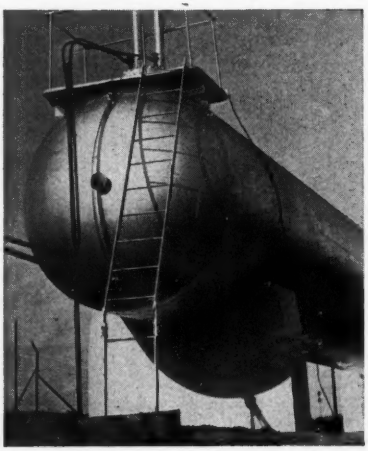
Well illustrated, the manual presents 15 pages of instructions and explanations for the dealer having brooder accounts or prospects.

Gas Range

Florence Stove Co., 205 School St., Gardner, Mass.

Description: Described as the "first really new design in gas ranges since the war," the Florence Stove Co. has announced that its new registered gas range, which features models with the entirely new waist-high "Broilercue," will be on display at the January markets in Chicago, New York and High Point.

It is pointed out that the Broilercue models are actually 2-oven ranges,



QUALITY
LPG TANKS

Custom-designed in the modern manner—It's a Lancaster tank.

With the emphasis on quality, safety, economy—and appearance—Lancaster offers the LPG dealer real value for his money. Engineering, fabrication and erection are always maintained on a high standard and in full accordance with Code requirements.

Your inquiries are cordially invited.

BULK TANKS SKID TANKS
TRUCK TANKS GAS HOLDERS

LANCASTER IRON WORKS, INC.
Lancaster, Penna.

BUEHLER

PROPA… BU… *Tanks*

A BUEHLER Tank truly is a thing of beauty—it has sales appeal. Its overwhelming acceptance everywhere among users and L. P. G. Dealers is proof of its dependability and satisfaction.

Buehler Propane-Butane tanks are well built, tough and long lasting. Extra care is given the critical points — welding, finishing and fittings. The 34″ sphere (86 gals. gross) and the 42″ sphere (162 gals. gross) are equipped with magnetic gauges. Each tank is tested to meet the important ASME and API-ASME code requirements.

Spheres, horizontal tanks and cylinders now are in production. Rely on Buehler's 27 years experience in tank building and place your order at once for early delivery.

BUEHLER

TANK AND WELDING WORKS

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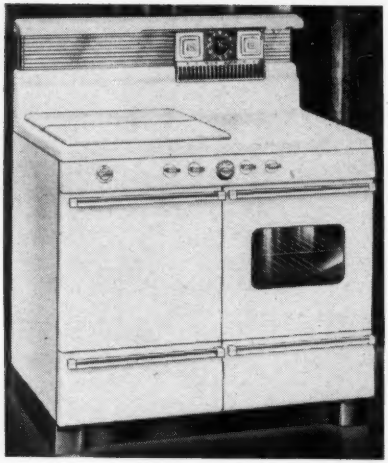
QUALITY YOU CAN SEE



inasmuch as larger cuts of meat can be roasted, broiled or barbecued in the Broilercue while hot breads, casseroles or cakes are baking in the oven.

Notable features are the extra large baking oven, panoramic sight window, interior oven light and the one-piece turret top with united and divided burner groupings.

Special attention is called to the new burners which have 'Hi-Lo" controls with a fixed simmering flame and are easily serviced from the top. Flush-to-wall installations are simplified by locating the gas intake pipe within easy reach through the top burner openings.

The Broilercue models have many new features, including an arched reflecting roof, porcelained pan and aluminum grill. The door, pan and grill swing out away from the heat so that meat and other food may be seen and turned with greater ease and comfort.

Immediate delivery on

LPG SYSTEMS

Shipments from Bessemer, Alabama, ASME Underwriter Approved Tanks, 125 to 200 pound working pressure, aboveground or underground.

Eight years' experience in building quality tanks.

L. P. G. EQUIPMENT COMPANY

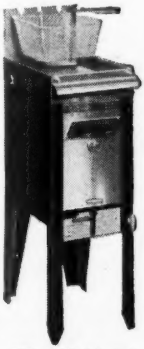
108 W. Concord Avenue, Orlando, Florida

P. O. Box 3507, Telephone 5206

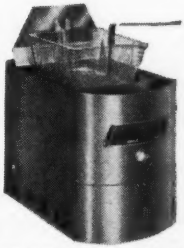
DEEP SEA FRYERS
have made me a lot of friends
—Dick Keating

PERFECTLY FRIED FOODS
FRIED FASTER AND
MORE ECONOMICALLY

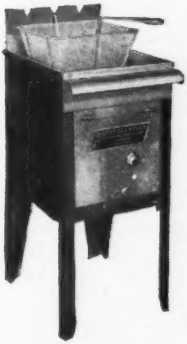
COMPLETE LINE to meet each individual need best. Prompt delivery.



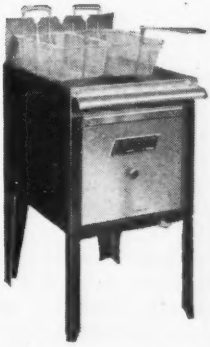
10" x 11" Model



10" x 11" Counter Model

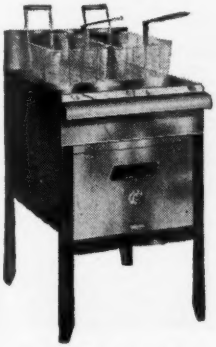


14" Square



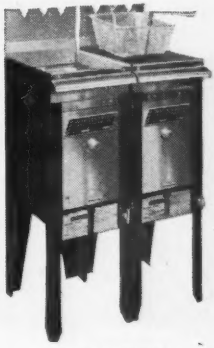
18" Square

SPECIALITIES APPLIANCE CORP. 343-A E. Ohio St., Chicago 11, Ill.



20" x 20" Heavy Duty

14" Square Twin



10" x 11" Twin

THE TRADE

In January, 1946, **Southland Steel Co.**, Dallas, was incorporated and reorganized with the express purpose of producing truck tanks of standard construction on an assembly line basis — a new idea in truck tank production.

CHAS. A. MAYER

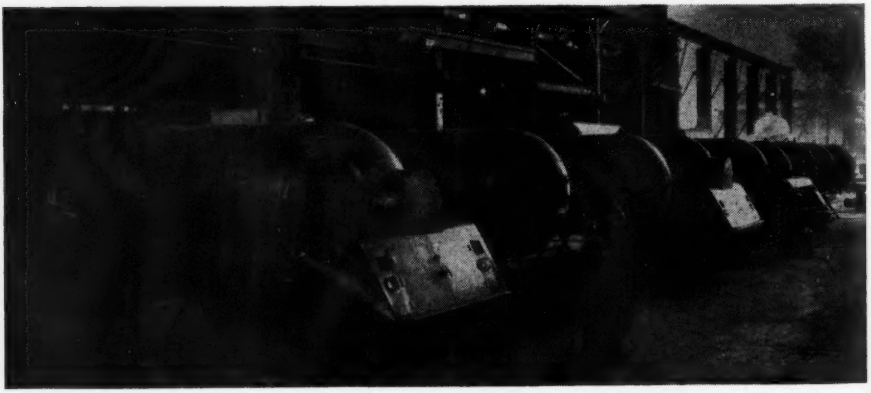
The engineering department under the direction of Charles A. Mayer, manager, has made an intensive study of safety in design as well as in weight relieving factors.

The result is an attractive, lightweight, streamlined body. Of further interest is the fact that it can be readily mounted on any long wheel base chassis. Large U-bolts with stops welded to the frame provide safe, secure permanency in construction.

"Charlie" Mayer was for many years a construction contractor in Dallas before the war. At Kelly Field and Avenger Field in Texas, he was a flight instructor for several years during the war. He helped organize Southland Steel Corp. and last spring he announced to LP-Gas dealers the debut of "Payload" transport truck tanks that "handle the load with loads to spare."

Leslie C. Battle, assistant treasurer since 1938, has been named treasurer of the **Harper-Wyman Co.**, Chicago, to succeed the late John J. Toomey, Philip S. Harper, president, announced recently. Mr. Battle has been with the company since 1932 and was appointed assistant treasurer in 1938.

"Jack" Toomey was widely known



The bullet-like steel tanks of Southland Steel Corp., Dallas.

John A. Robertshaw, president of the Robertshaw Thermostat Co., and Gregory Grace, factory superintendent at the Youngwood, Pa., plant, standing before the newly installed single-purpose machine which turns out BJ thermostats. It is a 16-ton machine which performs 52 operations and has a manpower ratio of 64 to 1.

throughout the industry as one of the pioneers in gas range designing. He was the inventor of the reversible-oven, console type gas range which he developed and patented and was also responsible for the design of several successful combination coal and gas ranges.

Stanley E. Little, vice president in charge of sales for **American Stove Co.**, in Cleveland, has been elected vice president and trustee of the Institute of Cooking and Heating Appliance Manufacturers, according to a recent announcement by the Institute.

Mr. Little has been actively engaged in Institute activities as well as other nation-wide organizations within the gas industry. In his new post, he will help to reconvert the Institute to a peacetime basis.

H. K. Porter Co., Inc., has announced that it was moving its two Quimby Pump manufacturing operations in New Jersey to be centralized in the company's plant at 49th and Harrison Sts., in Lawrenceville.

The Quimby Pump Co., Inc., was established in New York in 1893 and subsequently moved to its New Jersey plants, one in Newark and one in New Brunswick.

Storage and shipping facilities for spherical L-P Gas tanks and above- and belowground propane systems have been established at Eldon. Mo., across the Missouri river north of Jefferson City, by **Southern Gas & Equipment Co.**, of Tulsa, Okla.

At present 250-gallon spheres are being fabricated at Eldon, according to Chas. C. Dodd, of the L-P Gas Systems division of the company. It is

planned to enlarge this production in the near future to cover various sizes. In addition, 375-gallon and 500-gallon aboveground propane systems and 250-gallon underground propane systems will be placed there for immediate delivery.

"This will enable L-P Gas distributors and dealers, particularly in the northern, midwestern and northeastern sections of the country to have quicker delivery and lower freight costs than formerly," said Mr. Dodd in the announcement of this new service.

Earl V. Rupp, in the AAF since 1942, is joining the engineering department of **The Bastian-Blessing Co.**, Chicago, according to W. C. Buttner, chief engineer of the company.

Mr. Rupp will be engaged in the development of Bastian-Blessing products and in patent matters.

In the interest of providing better service to dealers in the Texas area, the **Rochester Manufacturing Co.**, Rochester, N. Y., announces the opening of a Dallas office, effective No. 1. It has been located temporarily at 259½ South Ervay, telephone North Central 7385. As soon as space can be obtained, a complete stock of gages will be carried.

DONALD McNALL

The office will be in charge of Donald C. McNall, sales engineer in the LP Gas gage division at Rochester. He will handle all of the company's products, which include liquid level, pressure and temperature gages.

Prior to his affiliation with the com-

Always "Reddy" for Instant Use
PIPETTE-Stik
PIPE JOINT COMPOUND
in Stick Form
POSITIVE SEAL
GOING OVER BIG!
PIPETTE-Stik
— for BUTANE, PROPANE, Gas Oil, Gasoline, Water, Air, Steam, Acid, Freon, Methyl Chloride, Brine, etc.
WON'T DRY OUT
HANDY AS A PENCIL
Contains No Lead. Contains No Injurious Ingredients.
NO MESS
NO BRUSH
NO WASTE
Order from your Dealer or write us for FREE SAMPLE
"Reddy"
Patented Copr. 1947
LAKE CHEMICAL COMPANY
Originators of Pipe Joint Compound in Stick Form
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WE ARE PROUD

of those with whom we have been privileged to associate ourselves in the development of a COMPLETE LPG SERVICE, for, businesses like individuals, are known by the company they keep.

Ranking high among these affiliations is that with the world-famed

A. O. SMITH CORPORATION

For more than 70 years a pioneer in the manufacture of quality steel products, the development of unexcelled welding processes, and techniques in production of automotive frames, high pressure vessels, oil and gas line pipe, and glass-lined storage tanks, that are recognized and proved in actual service throughout the world.

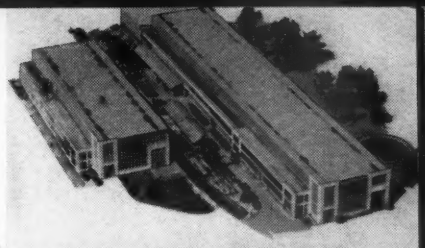
TRUE TO ITS PROVEN RECORD

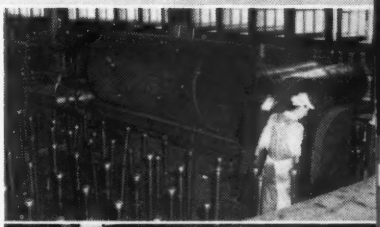
A. O. Smith Corporation is manufacturing for us, in its new, modern Houston plant, views of which are shown at the right, SOUTHERN GAS SYSTEMS to meet or exceed safety requirements of Paragraph U-69, ASME code.

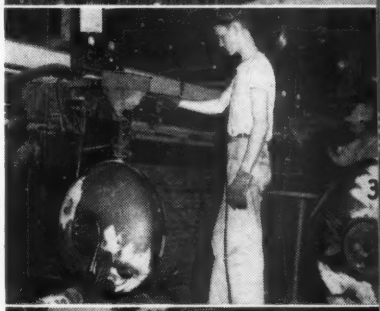
HIGHEST STANDARDS PREVAIL

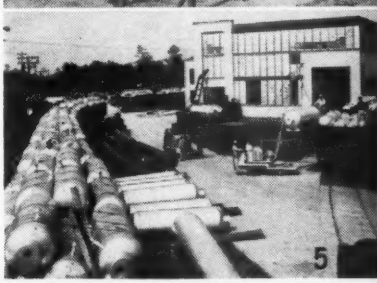
Typical of SMITHway standards, test borings of steel are submitted to its Milwaukee control laboratories for inspection and analysis BEFORE such steel is used in manufacture of LPG Systems at this Houston plant. SMITHway systems, in addition, meet or exceed all requirements and specifications of national and state safety codes.

Also characteristic of this company's painstaking care and attention to even the smallest details, the A. O. Smith SERIAL NUMBER—truly a mark of worth—identifies every step in the manufacturing history of each individual system to final inspection and delivery to the customer.









We Salute . . . .

A. O. SMITH CORPORATION

1. General view Houston Plant.
2. SMITHway tested steel goes into the roller.
3. Testing an LPG System.
4. Painting Finished Systems.
5. Trainload of systems loaded for shipment at Houston.

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Phone 4-2448

Gas SOUTHERN Systems

Branches—Sapulpa and Enid, Okla., Atlanta, Ga.

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Includes:

- CONVERSION BURNERS
- MELTING FURNACES
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The F & E Line of burners, heaters and torches offers tested and approved equipment for agricultural, industrial and commercial installations. Over 10 years experience as manufacturers of gas burning equipment.

F & E MANUFACTURING CO.

P.O. BOX D CENTERVILLE, CALIF.

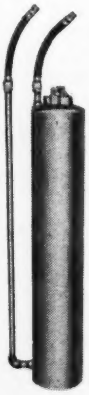
INCREASE YOUR PAYLOAD

Offer soft water rental service to your customers.

Increase your unit income by adding rental water softening tanks to your present truck route. Your overhead won't be much higher. Your final net profits will be more than satisfactory.

Rentals vary from $2.00 to $5.00 per month, depending on the community and the number of services. Cost of complete tank is $35.00. Entire equipment necessary for regenerating of one hundred tanks is less than $50.00. Advertising literature at cost.

Our territories are exclusive and our agents have the opportunity to represent us in the distribution of resale models when the latter are more suitable for specific customers. We are advertising our resale tanks nationally beginning Jan. 1947.



Cash or terms as long as 18 mo.

ZEOSOFT CORPORATION

32 North State Street

Suite 1416, Dept. B-1, Chicago 2, Illinois

pany, Mr. McNall was engaged in the distribution of liquefied petroleum gas for the Protane Corp. For the last four years he has been located at Rochester in the manufacturing and sales engineering departments.

Fred A. Shellhorn has been named traffic manager for the **Anchor Petroleum Co.**, marketers and producers of propane-butane, natural gasoline, and petroleum products, according to W. A. Baden, president of the firm.

F. A. SHELLHORN

Mr. Shellhorn, for the past year vice president of the Tulsa Traffic Club, was elected to the presidency of that organization recently. He is also vice chairman of the executive committee of the transportation department of the Tulsa Chamber of Commerce.

He was formerly traffic manager of the Hanlon-Buchanan Co. and Associates, holding that position since 1932.

In 1921 Mr. Shellhorn began his experience with transportation when he went to work for the Santa Fe Railroad. He spent 11 years with Santa Fe and other railroads before joining Hanlon-Buchanan.

Postponement of any major design changes in **Tappan Stove Co.'s** gas ranges until the summer of 1947 has been announced by A. B. Ritzenthaler, vice president in charge of sales.

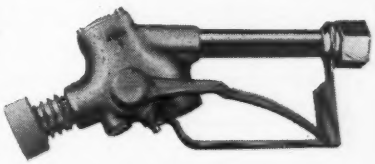
This announcement was made after it was learned many dealers have waiting lists that cover allocations for many months ahead despite the

ADEL L.P.G. DISPENSING EQUIPMENT

is designed to meet the rigid requirements of the Bureau of Weights and Measures, the National Board of Fire Underwriters and the L.P.G. Industry.

You will find ADEL'S modern, high-pressure Liquefied Petroleum Gas Dispensers *right* for your operational needs.

The ADEL Buta-Fill Nozzle is fast coupling, automatic, light of weight and very maneuverable with 3/4 inch and 1 inch connections.



ADEL BUTA-FILL NOZZLE

Please address all inquiries to

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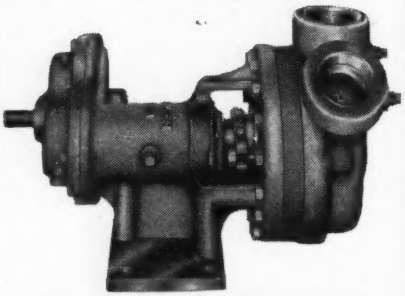
10610 VAN OWEN STREET, BURBANK, CALIF.

WRITE FOR FREE CATALOG AND NAME OF DISTRIBUTOR IN YOUR TERRITORY

IT'S NEW



IT'S BUILT ESPECIALLY FOR BUTANE-PROPANE

CORKEN'S

TRUCK PUMP

—is now ready to go to work for you. Ready to unload delivery trucks into above or underground storage or into 100-pound cylinders.

Corken's Truck Pump has enough capacity to transfer from transports to storage . . . enough differential pressure to fill bottles.

Extremely sturdy . . . takes up small space, being 16½" long, 10" high and 10" wide . . . weighs 100 lbs. Built to transfer millions of gallons of LP Gas without maintenance. Write, wire or phone for our illustrated folder.

CORKEN'S

L P GAS EQUIPMENT DEPT.

206 E. Grand Ave.

OKLAHOMA CITY 2, OKLA.

Tel. LD 765, 7-6517

fact Tappan ranges have been shipped in large volume without interruption since V-J Day.

It was pointed out that at present, unlike normal years when sales must be stimulated by model changes, it is production rather than sales which must be stimulated to the fullest extent.

Charles W. Bonar, Chicago sales representative for Tappan, has been named director of retail sales training for the firm.

It was also announced that Earl C. Greene and Charles R. "Bob" Aungst, both former Army officers, have been assigned to the Chicago area as sales representatives.

A. E. JACOBS

Arthur E. Jacobs has been appointed vice president and sales manager of **Blackmer Pump Co.**, Grand Rapids, Mich., according to an announcement by B. L. Gordon, president of the company.

Mr. Jacobs was formerly general sales manager of the pump division of George D. Roper Corp., Rockford, Ill., and has, for more than 30 years, been engaged in the design, production and marketing of industrial equipment, chiefly pumps, hydraulic machinery and machine tools.

The Bastian-Blessing Co., Chicago, has always made every effort to promote safety—in fact, has constantly "preached" it to the LP-Gas industry. The award of a Certificate of Safety Achievement by the United States Department of Labor for the second time constitutes proof that, within

More Western Women
Use WEDGEWOOD
Than Any Other
GAS RANGE

MODERNUS PRAESTO GAS

● During the past 65 years over a million WEDGEWOOD GAS RANGES have been bought by Western homemakers.

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Peerless

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First IN Quality

62 years of Peerless research in the Science of Heating and its allied problems of Engineering, Design, Styling and Finish has resulted in Today's outstanding Quality Heating Equipment.

We have not and will not permit scarcities of Quality Materials to tempt us to compromise these long established high Quality Standards.

It is our determination to steadfastly adhere to our enviable policy of Top Quality Gas Equipment, rather than produce a phenomenal volume to satisfy current demands with the inevitable sacrifice of Quality.

Remember . . Peerless First on the Heat Parade.

MANUFACTURING CORPORATION
Incorporated
LOUISVILLE, KENTUCKY
Since 1884

its own plant, the company practices what it preaches.

"In recognition," this certificate reads, "of the outstanding accident prevention efforts which resulted in a substantial reduction of work injuries during the period January through June, 1946, thereby contributing to the common good by preventing human suffering and curtailing economic waste."

Inasmuch as Bastian-Blessing received a similar certificate for the period July through December, 1945, these two awards cover an entire year and make the company one of the most notable plants in the country from a safety standpoint.

G. P. EICHELSBACH, JR.

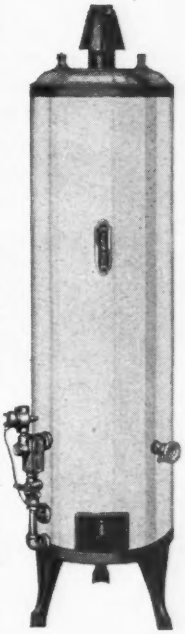
George P. Eichelsbach, Jr., who began with the American Stove Co.'s St. Louis plant in 1935 as an engineering draftsman and became successively chief engineer of the St. Louis division and chief engineer of the entire company, has been elevated to director of manufacturing and engineering by the board of directors.

President Arthur Stockstrom, in announcing the new appointment, said that few engineers have risen to a comparable position in such a short time. In just 11 years Mr. Eichelsbach has advanced until now he has full responsibility for both manufacturing and engineering in all five plants of the American Stove Co.

The Southeastern sales division headquarters of the American Stove Co. have been moved from 252 Peachtree St., to Suite No. 415 in the Can-

A SYMBOL OF *Extra* ADVANTAGES

The word MISSION on the exterior of a water heater is more than just a trade mark. It is a symbol of special and exclusive features... advantages found only in a MISSION AUTOMATIC GAS WATER HEATER engineered to give "more hot water per minute at less cost." In addition, MISSION brings the dependability inherent in a water heater completely fabricated in one plant ... under the supervision of MISSION engineers. MISSION is one of the few plants of its kind on the Pacific Coast.



★ ***Exclusive Inner-Tank circulation exposes over double the normal tank area to heat absorbtion.***

★ ***Heavy tank construction and rust corrosion resisting features ensure longer life.***

★ ***Hot water on first circulation brings lower fuel costs.***

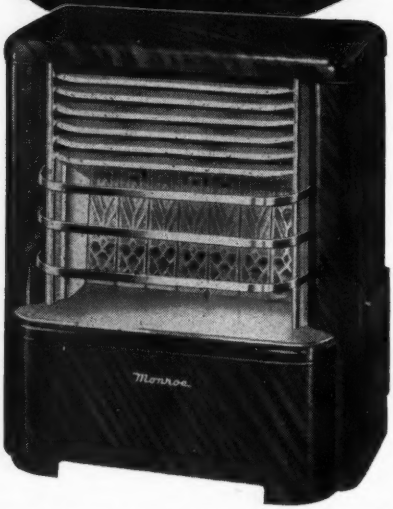
★ ***High effectiveness of burner and distribution of heat energy bring operation economy.***

Mission Appliance Corporation

Headquarters PLANT: 7101 McKINLEY AVENUE, LOS ANGELES 1, CALIFORNIA

San Francisco • Oakland • Portland • Kansas City • Dallas • Albuquerque • Houston • New Orleans

BUILD
Your Service and User-Satisfaction
WITH
Monroe
L.P.G. HEATERS



Your service is only as good as the devices which use the gas. Inefficient appliances mean high bills —cheap, poorly built appliances are costly at any price.
MONROE vented and unvented heaters are especially designed and engineered for Liquefied Petroleum Gas.
Quality and economy, plus the exclusive Kool Kabinet for safety, makes MONROE first choice of L.P.G. operators.
See your representative at Booth 1740-41, Chicago Furniture Show. Have him show you Monroe's famous GASMASTER Burner — Warm-Flor Radiants — Patented Interiors — and attractive Kool Kabinet.

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Sales and General Offices:
3256 Milwaukee Ave. Chicago 18, Ill.
WAREHOUSE BRANCHES:
Newark, N. J.—Columbus, Ohio—Omaha, Nebr.
San Francisco, Calif. Sales Office: Dallas, Texas

dler building, Atlanta, Ga., according to a recent announcement by L. L. Peters, sales manager of that territory.

Lincoln Manufacturing Co., 8680 Otis Ave., South Gate, Calif., one of the Pacific Coast manufacturers of butane - propane tanks and equipment, is undergoing a complete organizational change in order to streamline and increase production to take care of the increasing demands of this type of equipment.

WM. HARVICK

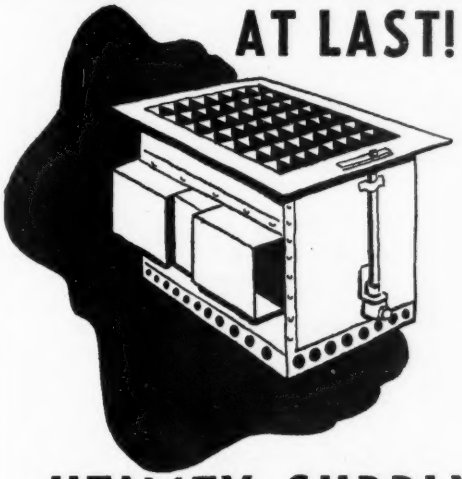
Bill Harvick, former assistant general manager of Pacific Fabricating Co., later to become Hammond Manufacturing Corp., is now partner with Ralph Beisner in the new set-up at Lincoln, having bought the interest of Geo. Hume, former partner of Mr. Beisner's.

Eli Thorpe, formerly plant superintendent of Hammond, and lately of Soul'e Steel Co., is the new shop superintendent at Lincoln. Many improvements and additions are in the process of being carried out.

Officers of the new organization now are Relph Beisner, president; Bill Harvick, vice president in charge of sales; Al Doney chief estimator and engineer; Eli Thorpe, shop superintendent.

The Pennsylvania Gas Co. is increasing its service facilities for the Erie, Pa., area by installing a propane gas storage plant.

The chemical plants division of **Blaw-Knox Co.** was awarded the con-



AT LAST!

A floor furnace built especially for trailers. Adaptable to small rooms, cabins and bathrooms. Size 10" by 14" by 10" deep. Abundant heat—extra space—no wall sweating.

Distributed East of the Rocky Mountains by

Anco Manufacturing & Supply Co.

Atlas Life Building
Tulsa, Okla.

UTILITY SUPPLY COMPANY

P. O. BOX 365—FRESNO, CALIFORNIA
Exclusively Wholesale for LPG Dealers

NOW Our L-P Gas Correspondence Course Is Available For Home Study

Covering Application and Equipment
FOR EMPLOYERS and EMPLOYEES

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PROFIT By the study of the latest developments, how to balance your summer and winter fuel problem, and the safe installation operation and maintenance of L-P Gas equipment.

YES the resident classes for those wishing personal instruction start the 15th of each month.

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PUBLIC LIABILITY INSURANCE

A policy completely covering all hazards for which the operator, distributor or dealer might be liable, or assume under contract.

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Also

Motor Vehicle Coverage and/or Workmen's Compensation Coverage

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See Butane-Propane News, March 1946, Page 19, and September 1946, Page 82, for complete explanation of coverage.

•

Write for free Application Blank covering all questions to be answered in connection with coverage you desire.

LOUIS H. COLLAR

Manager

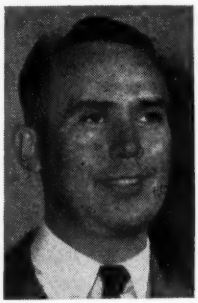
Liquefied Petroleum Gas Insurance Underwriters

c/o Western Insurance Underwriters, Inc.
Insurance Exchange Building
Kansas City 6, Mo. - Phone: VIctor 7460
or
1913 Tauromee Ave., Phone: DRexel 3331
Kansas City 2, Kansas

tract for design and construction of the storage plant.

Propane gas will be used to supplement the company's regular gas supply for industrial and residential users during the peak winter demand. The plant is scheduled for operation in January.

Hal Singleton, sales manager of **Grayson Heat Control, Ltd.**, Lynwood, Calif., announces the addition of A. W. Beck to the sales staff.



AL BECK

Mr. Beck, while employed with the Southern California Gas Co. for eight years, divided his time between the customers service department and the sales department. After spending some time as a service man, he was made an instructor in the employe training department. At the time of his resignation from the gas company, he was hotel and restaurant sales representative.

Mr. Beck was educated in Utah schools and is a member of the University of Utah Alumni Association. He will act as sales representative for Grayson with headquarters in Lynwood.

As another step forward in their $3,000,000 postwar building program, the **American Stove Co.** has purchased a Cleveland war plant for the production of "Magic Chef" heavy duty cooking equipment, according to a recent announcement by Arthur Stockstrom, president of the firm.

With the addition of the new plant the American Stove Co. gains over

FOR SAFETY'S SAKE...

. . . specify Graver LPG storage tanks . . . their fabrication, including welding, X-raying and stress-relieving, adheres to ASME Code standards for Unfired Pressure Vessels.

Shop built and field erected, Graver bullets or spheres are available in any size or capacity to meet your specific requirements.

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If You Are Seeking:—

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2—A UNIFORM PRODUCT
3—A CAPABLE SUPPLIER
4—AN EXPERIENCED MANUFACTURER

Then inquire—

Cities Service Oil Co.

In Propane also

CITIES SERVICE
means
GOOD SERVICE

CITIES
Service Oil Co.
(Delaware)

BARTLESVILLE, OKLA. — CHICAGO, ILL.

Other Sales Offices

Cleveland — Kansas City
St. Paul — Toronto

250,000 square feet of factory and office space.

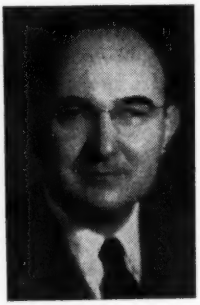
Other expansion developments include the addition of more than 300,000 square feet of working area to the St. Louis manufacturing plant and the construction of an ultra-modern, six-story office building.

As part of the American Stove Co.'s policy of intensive research in the design and development of cooking appliances of all types, William Lotter has been appointed assistant to A. H. Brodbeck, director of research, and will be in charge of research development of "Magic Chef" heavy duty cooking equipment.

Mr. Lotter was formerly chief engineer of the Cleveland division of the company.

Marc W. Pender, director of market research for "Magic Chef" gas ranges, has been appointed member of a Task Force committee, purpose of which is to provide cooking facilities for veterans' housing, according to a recent announcement of Institute of Cooking and Heating Appliance Manufacturers.

Harry Newcomb, present vice president and assistant to the president, was named executive vice president of **Servel, Inc.,** it is announced by Louis Ruthenburg, president.



HARRY NEWCOMB

Mr. Newcomb came to Servel in the fall of 1934 as manager of the commercial refrigeration division. In 1942, he was made vice president and manager of the electric refrigeration division, and in 1943 he was appointed assistant

Hidden Ingredients

IN EVERY SHIPMENT OF SINCLAIR LP-GASES

SINCLAIR "Integrity", "Reputation" and "Personal Service" are "hidden ingredients" which come to you in every shipment of SINCLAIR LP-GASES. These make the name SINCLAIR mean more to its dealers.

The test of a source of supply is in the way it takes care of its customers requirements during the season of peak consumption. SINCLAIR'S planned production fills the orders of its dealers with regularity. Plan your propane purchases with SINCLAIR now.

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LIQUEFIED PETROLEUM GAS DIVISION

YOU LOSE 500 TO 1000 LBS.

of LP Gas in every tank car unloaded

... if you don salvage residue vapor

You pay for this residue vapor poundage and for its transportation! It cannot be recovered by an ordinary liquid pump, but it can be recovered with the Brunner LP Gas Unit, a compressor assembly that pumps volatile liquids and salvages their residue vapor. Unloading, too, is speeded. When you buy a Brunner LP Gas Unit you buy a pump that has world wide acceptance and is the best for the purpose, regardless of the price paid. The savings affected liquidate the investment in a short time. On any liquid petroleum handling problem consult:

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ARMY E NAVY

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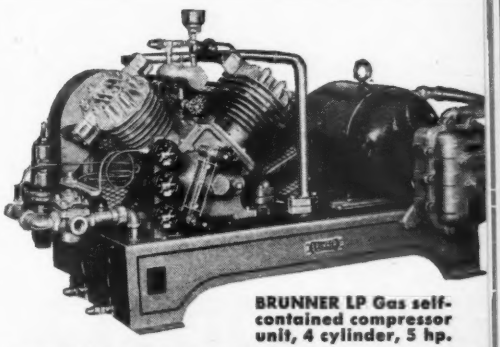
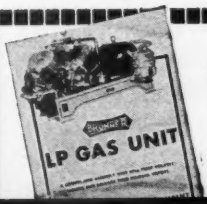
For over 40 years the Symbol of Quality



BRUNNER LP Gas self-contained compressor unit, 4 cylinder, 5 hp.



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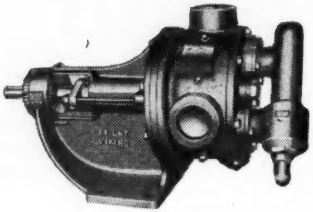
It describes the Brunner LP Gas U and contains more illustrations, agrams, tables and valuable int mation on the handling of LP G than any booklet ever issued.

Recent National Pump Survey Shows:

VIKING TOPS

ROTARY PUMP FIELD



In a recent national survey, Viking Rotary Pumps led the rotary pump field in popularity and widespread use. Vikings topped the field, being encountered 29.1% of the time among 17 makes of rotary pumps listed.

There is a reason for this popularity. Vikings place first because of their extremely simple design . . . their rugged construction . . . their record of dependable performance. Thus throughout the years they have earned their place as leader in the rotary pump field.

For complete information about Viking Rotary Pumps, write today for bulletin series 46S. It will be sent to you free by return mail.

VIKING PUMPS — FIRST IN AMERICA

See Our Catalog In SWEETS

VIKING Pump Company

CEDAR FALLS, IOWA

to the president, retaining the title of vice president.

Previous to his association with Servel, Mr. Newcomb was with the Norge Division of the Borg-Warner Corp.

Harold E. Jalass has been appointed general sales manager of **Cribben and Sexton Co.**, manufacturers of "Universal" gas ranges, according to an announcement made by W. M. Hillborn, executive vice president of the company.

H. E. JALASS

Mr. Jalass joined Cribben and Sexton in 1917 and was added to its sales staff in 1922. For the past 15 years he was district manager of the metropolitan Chicago area, during which time he conducted over 1500 point-of-sale demonstrations before groups ranging from 25 to 200 persons. In August Mr. Jalass was appointed assistant general sales manager to John E. Bogan, whom he now succeeds.

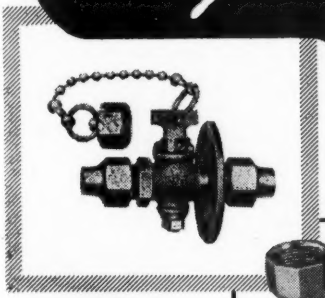
Florida Taxes Impounded Pending Outcome of Suits

Five bottled gas companies failed recently to obtain an injunction restraining the city of Coral Gables, Fla., from imposing a 10% tax on consumers of their products.

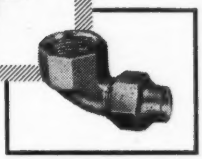
They won a stipulation, however, under which the city will impound such tax moneys until the dispute is finally settled.

The injunction was denied by Cir-

Designed TO MEET LP-GAS NEEDS



No. 7665 Floor Stop



No. 9500 Stove Elbow

77 YEARS HAYS DEPENDABLE SERVICE

Hays has worked closely with LP-Gas Engineers, to design and produce a complete line of stops and fittings for every installation need, for use with flared tubing. Couplings are included, no other fittings or adapters are necessary.

Illustrated are No. 7665 Floor Stop, ideal for temporary disconnections, with adjustable flange, and with or without cap and chain, ⅜" or ½" tubing (o.d. sizes); and No. 9500 Copper to Female I.P. Stove Elbow, ⅜" or ½" tubing (o.d. sizes) x ¾" iron pipe.

Send us your requirements, for complete information and specifications.

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Complete and Compact Delivery Service

This complete combination propane and appliance delivery truck body holds 900 gallon of propane and still leaves room behind for cylinders and appliances. Built for C. H. Spurgin, Rockgas distributor, at Pacific Palisades, California, by the

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No Liquid "SPILL-OVER"
DURING FILLING OPERATIONS
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WITH DIRECT
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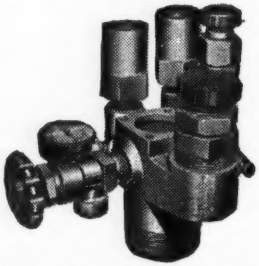

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ABOVEGROUND
LPG CONTROL HEAD
Supplied in Complete Assembly Kits or as a UNIT without FITTINGS

The UH-50A-1 and 2, and the UH-40B-1 and 2 control heads are acceptable to Underwriters' Laboratories, Inc., for use on listed liquefied petroleum gas systems where the suitability of their particular application has been determined.

UNIVERSAL UH-40B-1 and 2 SERIES for Below-ground Systems DESIGNED with INTERNAL FILLING TUBE and 2½" (Female) Threads for the Installation on any Length TANK RISER.

BOTH SERIES designed for FILLER, VAPOR RETURN, LINE and RELIEF VALVES in .30 or .60 RELIEF AREA.

(Vent Valves and Pressure Gauges Optional.)

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P. O. Box 5937 Dallas 2, Texas

cuit Judge Charles A. Carroll, who allowed Edward C. Semple, Coral Gables counsel, to file pleadings to the arguments raised by the gas companies.

Unlike the recent attack on the city of Miami's adoption of a similar tax on utilities, this suit contends only that bottled gas is not a public utility.

The five companies maintain that the 1945 legislative act permitting municipalities to impose utility taxes improperly classified bottled gas.

Challenging the tax are Southwest Natural Gas Corp., Gas-Oil Products, Inc., Miami Bottled Gas Co., Brook Gas Co., and Carbide and Carbon Chemicals Corp.

The suit against the Miami tax, affecting the Florida Power & Light Co., was brought by John C. Johnson, unsuccessful candidate for the city commission and current candidate for the county commission. His action was dismissed by Circuit Judge Marshall C. Wiseheart.

The city board of representatives of Tampa, Fla., deferred action recently on an ordinance which would set up the proposed tax on customers' utility bills.

Mayor Hixon sent the utility tax ordinance to the board marked "urgent" and with a request that it be started immediately toward adoption but it was referred to the rules committee "for study" without comment.

It calls for the placing of a flat 10% tax on bills for water, electricity, telephone, gas and bottled gas, the revenue from the tax to be used solely for public works projects, and equipment as provided in the new budget.

Sellers of such utility service would be required to keep sales records, make them available to the city, collect the taxes from all users of the services except federal, state and county agencies, and turn it over to the city as of the 15th of each month.

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152 gallon capacity 200 lb. W.P.
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Also all size Butane Transports, complete.
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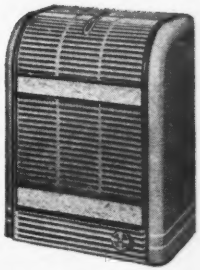

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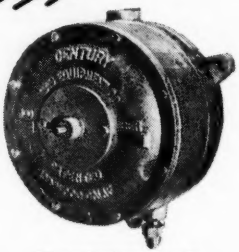

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- Combination butane-gasoline carburetors.
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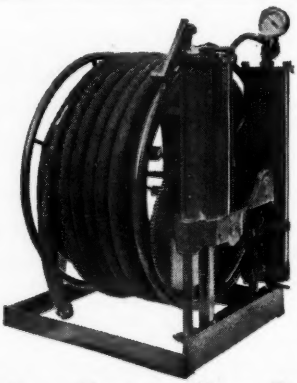

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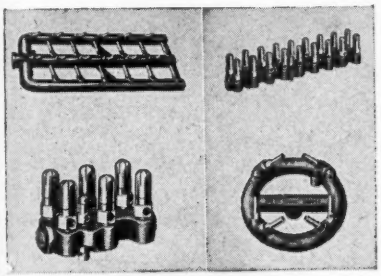

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HELP WANTED

OFFICE MANAGER—For an Old Established Bottled Gas Business located in Florida. Must be capable and thoroughly experienced in Accountancy and the L.P.G. Business. State qualifications. Box 110, BUTANE-PROPANE *News*, 1709 W. 8th St., Los Angeles 14, Calif.

A POSITION IS AVAILABLE IN SOUTHwestern United States. If you are thoroughly familiar with the manufacture and distribution of Butane & Propane Equipment; are acquainted with raw material suppliers; have a basic engineering knowledge; have ability to organize and direct personnel. If your record proves that you are a capable executive, We Have a Position For You. Write P. O. Box 1144, Houston 1, Texas. Give Financial, Credit, Character and Ability References—Age—Experience and Salary desired.

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QUALIFIED MAN with twelve years experience in L.P. Gas Business. Especially interested in all types and makes of L.P. Gas Carburetion. Desire affiliation with company that has a future. Will go any place. Box 120,, BUTANE-PROPANE *News*, 1709 W. 8th St., Los Angeles 14, Calif.

BUSINESS OPPORTUNITIES WANTED

BUSINESS WANTED—Small Appliance Store and Bottled Gas Business somewhere in southern Florida. Box 994, c/o George Titus, Vero Beach, Florida.

WANTED TO BUY—ESTABLISHED BUTANE-PROPANE BUSINESS ANYWHERE IN U.S. FULL DETAILS MUST ACCOMPANY ALL REPLIES. BOX 130, BUTANE-PROPANE NEWS, 1709 W. 8TH ST., LOS ANGELES 14, CALIF.

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WANTED TO BUY—100 LB. I.C.C. PROpane gas cylinders, new or used, wire collect quantity and price, one-cylinder or a carload. COLEMAN BOTTLED GAS SERVICE, 122 S. Grove Ave., Elgin, Illinois.

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FOR SALE—STOVE ORIFICES ¼, ¾, and ½ Flare Nuts, and other L.P.G. fittings. Write FUELGAS CO., 5905 N. Saginaw St., Flint, Michigan.

FOR SALE—BOTTLED GAS CYLINDERS and meters. Like new. Box 495, Syracuse, N.Y.

FOR SALE—BUTANE DELIVERY TRUCK complete, 1940 Ford 1½ Ton with new motor and extra heavy springs, overloads, booster brakes, 1230 gal., 80 P.S.I. Tank, Pump and Hose. $2000.00 complete. RONEY'S, Box 1089, Corsicana, Texas. Phone 300.

FOR SALE—IMMEDIATE DELIVERY—NEW twin barrel Butane and Propane transport trailers. Complete and ready. Write for complete specifications. THE DALLAS TANK SALES & EQUIPMENT CO., 3406 Main St., Dallas 1, Texas. Phone Riverside 4747.

ATTENTION: FOR SALE—APPROVED Propane Cylinders—Immediate Shipment; also Propane Tanks. Aboveground or Underground. Write—Wire—Phone Stainless Steel Tank Corp., 176 W. Adams St., Chicago 3, Illinois.

FOR SALE—LARGE EXPLOSION PROOF Light Fixtures with 24 feet of electric cable attached—at the wholesale price of $27.50 each, you save $15.00 each. Also explosion proof telephone bells at a big saving. S. O. Benefield, 1316 Springhill Ave., Mobile, Ala.

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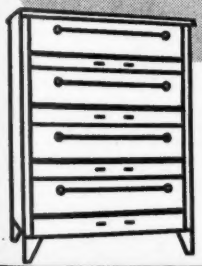

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Ace Hose Reel Co. 156
Adel Precision Products Corp. 141
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American Liquid Gas Corp. 121
American Meter Co. 4
American Pipe and Steel Corp. 72
American Stove Co. ..... —
Anchor Petroleum Co. .....Front Cover
Armstrong Products 155

Barber Gas Burner Co., The 157
Bastian-Blessing Co., The 80, 81
Beam Products 123
Black, Sivalls & Bryson Co. ..... —
Blickman, Inc., S. ..... —
Blodgett Co., Inc., The G. S. 3
Brunner Manufacturing Co. 151
Bryant Heater Co. 47
Buehler Tank and Welding Works 133
Butane Equipment Co., Inc. 37
Butler Manufacturing Co. ..... --

C and S Manufacturing & Supply Co.. 89
Caloric Stove Corp. ..... —
Carter Oil Co., The 126
Century Gas Equipment Co. 156
Chicago Combustion Co. 156
Cities Service Oil Co. 150
Clayton & Lambert Manufacturing Co. —
Climax Industries, Inc. 82
Coast-To-Coast Trailer Supply Co. 42
Commercial Shearing & Stamping Co. 156
Consolidated Industries 63
Corken's 142
Cribben & Sexton Co. ..... —

Dallas Tank Co., Inc. 77
Day & Night Manufacturing Co. 96
Dearborn Stove Co. 52
Delta Tank Manufacturing Co., Inc... 155
Detroit-Michigan Stove Co. 61
Domestic Thermostat Co. ..... —
Downingtown Iron Works 102
Dresser Industries, Inc. 33, 47, 96
Duke Manufacturing Co. ..... —

Electric & Carburetor Engineering Co. 123
Ellis Automatic Butane Co. 8
Ellis Manifold Co. 124
Empire Stove Co. 64
Ensign Carburetor Co. 116
Estate Stove Co. ..... —
Ever-Tite Coupling Co. ..... —

F & E Manufacturing Co. 140
Fisher Governor Co. 103
Florence Stove Co. ..... —

Gas Equipment Co., Inc. 14
Gas Equipment Supply Co. 14
General Controls 99
General Gas Light Co. ..... —
General Manufacturing Co. 112
Graham Manufacturing Co., James 143
Graver Tank & Manufacturing Co. 149
Grayson Heat Control, Ltd. 93

Harper-Wyman Co. 95
Hays Manufacturing Co. 153

Kerotest Manufacturing Co. ...Third Cover

Lake Chemical Co. 138
Lancaster Iron Works, Inc. 132
L. G. E. Corp. 157
Lincoln Manufacturing Co. 108
L. P. G. Equipment Co. 134
L. P. G. Insurance Underwriters 148
Lynn & Co., Inc., H. E. 110

Mallinckrodt Chemical Works 159
McDonough Steel Co. 111
McNamar Boiler & Tank Co. 49
Midland Parts & Bearings Co. 100
Milwaukee Gas Specialty Co. ..... —
Mission Appliance Corp. 145
Mitchell Co., John E. 129
Monroe Stove Co. 146
Mutual Liquid Gas Equipment Co., Inc. 105

National Gas Equipment Co., Inc. ..... —
National LP-Gas Institute 147
Natural Gas Odorizing Co. ..... —
Neptune Meter Co. 87

Ohio Foundry & Manufacturing Co... 159
O'Keefe & Merritt 31
Oxford Co., The 128

Pacific Tanks Co. ..... —
Payne Furnace 33
Peerless Manufacturing Corp. 144
Peerless Pump Division ..... —
Phillips Petroleum Co. ..... —
Pitman & Sons Sales Corp., J. C. 157
Pittsburgh Equitable Meter Division
Rockwell Manufacturing Co. ..... —
Pressed Steel Tank Co. .....Second Cover, 1

Radiator Specialty Co. 29
Ransome Co., The 85
Reliance Regulator Corp. 39
Reznor Manufacturing Co. 109
Rheem Manufacturing Co. 75
Robertshaw Thermostat Co. 159
Rochester Manufacturing Co., Inc. 10
Roney, Inc., L. C. 119
Roper Corp., Geo. D. (Ranges) 106

Savory Equipment, Inc. ..... —
Scaife Co. 44, 45
Schoenberger Co., The W. J. 71
Schutte & Koerting Co. ..... —
Security Manufacturing Co. ..... —
Selwyn-Landers Co. 35
Servel, Inc. 50, 51
Sinclair Prairie Oil Co. 151
Smith Corp., A. O. 55
Smith Corp., A. O. (Gas Tanks) 125
Smith Precision Products Co. 91
Southern Gas & Equipment Co. 139
Southland Steel Co., Inc. 41
Specialities Appliance Corp. 135
Sprague Meter Co., The 101
Stampings, Inc. 57
Superior Tank & Construction Co. 153
Superior Valve & Fittings Co. 104

Tappan Stove Co., The 69
Thomas Truck & Caster Co. ..... —
Trageser Copper Works, Inc..Fourth Cover

United States Heater Co. 67
Universal Gas Equipment Co. 154
Utility Supply Co. 147

Viking Pump Co. 152

Ward Heater Co. ..... —
Warren Petroleum Corp. 79
Weatherhead Co., The ..... —
Welbilt Stove Co., Inc. 127
Western Gas Equipment Co. 155
Williams Radiator Co. ..... —

Zeosoft Corp. 140

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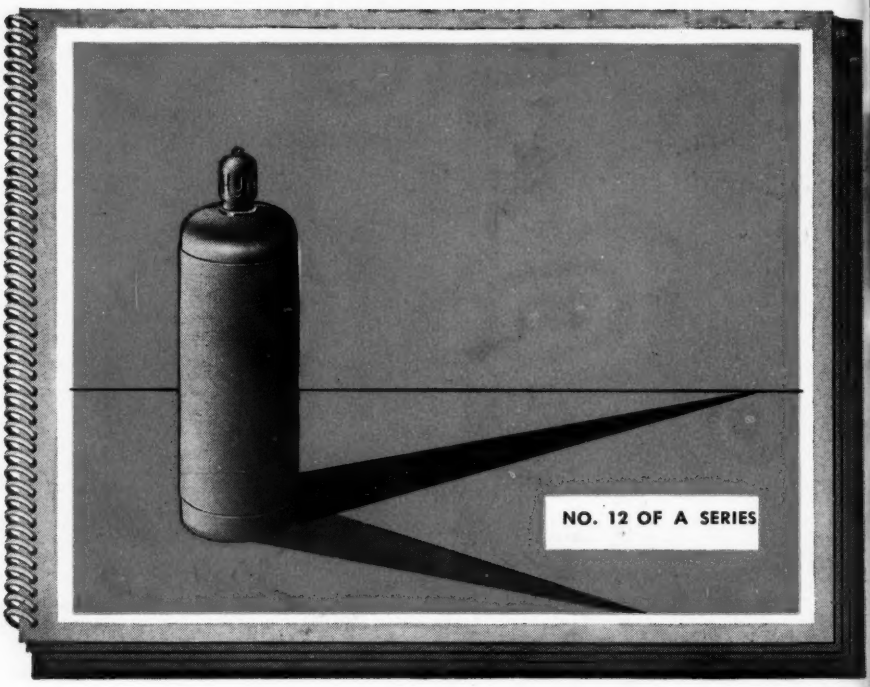

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Most modern LP-Gas Cylinder plant in the country . . . 96 years of making high quality pressure vessels . . . heavy self-draining flanges, ample threads . . . thorough pickling to remove scale, prevent clogging, provide base for painting . . . all sizes . . . special equipment to your design.

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